HITACHI
SERVICE MANUAL

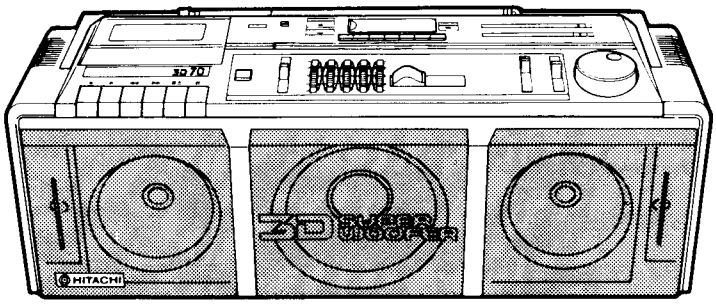
TY	No.568EF

TRK-3D70/3D75

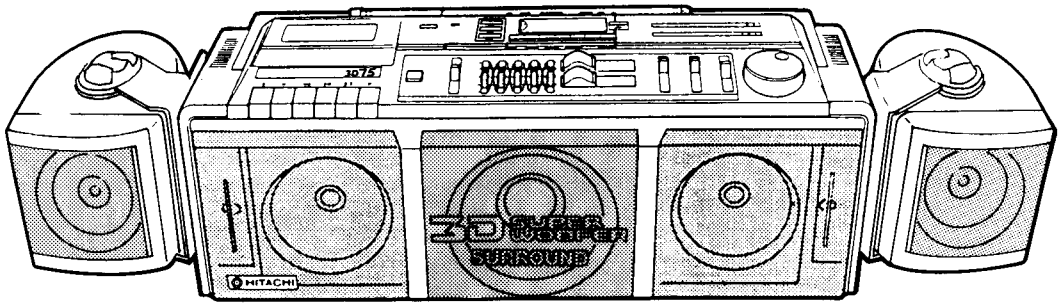
E,E(BS),W,W(UN),AU,H,HC

TN-21H-982 [For E, E(BS)]
TN-222F-140 [Except E, E(BS)]

AP32



TRK-3D70



TRK-3D75

CONTENTS

KEY TO ILLUSTRATIONS 2
SPECIFICATIONS 3
DISASSEMBLY 5
ADJUSTMENT 7
INSPECTION OF MECHANISM 13
LUBRICATION 15
DIAL CORD STRINGING 15
BLOCK DIAGRAM 16
CIRCUIT DIAGRAM 17
PRINTED WIRING BOARD 20
EXPLODED VIEW 22
REPLACEMENT PARTS LIST 25

TABLE DES MATIERES

SIGNATION DES COMMANDES 2
CARACTERISTIQUES TECHNIQUES . 4
DEMONTAGE 6
REGLAGE 9
CONTROLE DE MECANISME 14
GRAISSAGE 15
CADRAN 15
SCHEMA 16
PLAN DE CIRCUIT 17
PLAN DE BASE 20
VUE ECLATEE 22
TABLEAU DES PIECES 25

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

FM/SW/MW/LW RADIO CASSETTE TAPE RECORDER

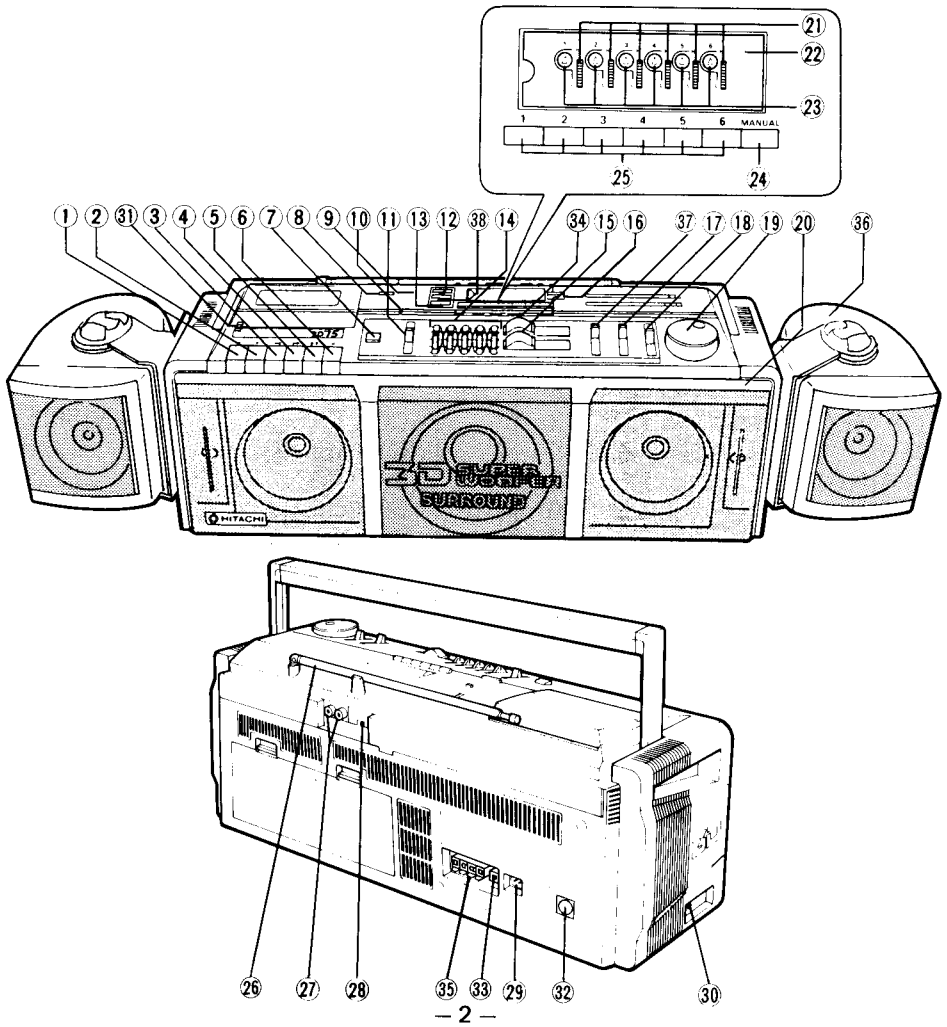
July 1987 TOYOKAWA WORKS

KEY TO ILLUSTRATIONS

① RECORD BUTTON
② PLAYBACK BUTTON
③ REWIND BUTTON
④ FAST FORWARD BUTTON
⑤ EJECT/STOP BUTTON
⑥ PAUSE BUTTON
⑦ OPERATE SWITCH
⑧ TAPE COUNTER
⑨ RESET BUTTON
⑩ 3D SYSTEM SWITCH
⑪ TAPE SELECTOR
⑫ OPERATION INDICATOR
⑬ 3D SYSTEM INDICATOR
⑭ GRAPHIC EQUALIZER CONTROLS
⑮ VOLUME CONTROL (MAIN)
⑯ FM STEREO INDICATOR
⑰ FUNCTION SELECTOR
⑱ BAND SELECTOR
⑲ TUNING CONTROL
⑳ INNER MICROPHONE (MONAURAL)
㉑ FM PRESET TUNING KNOBS [for E, E(BS)]
㉒ FM PRESET TUNING KNOBS COVER [For E, E(BS)]
㉓ FM PRESET TUNING INDICATOR [For E, E(BS)]
㉔ FM MANUAL BUTTON [For E, E(BS)]
㉕ FM PRESET BUTTONS [For E, E(BS)]
㉖ ROD ANTENNA
㉗ CD/LINE IN SOCKET
㉘ FM MODE/RIF/AFC SELECTOR
㉙ AC SOCKET
㉚ HEADPHONES SOCKET
㉛ DIRECTION BUTTION [For W, AU, H, HC]
㉜ VOLTAGE SELECTOR [For W]
㉝ DC JACK [For W]
– For TRK-3D75 only –
㉞ VOLUME CONTROL (SURROUND)
㉟ SURROUND SPEAKER CONNECTOR
㊱ SURROUND SPEAKER
㊲ SURROUND SELECTOR
㊳ SURROUND INDICATOR

SIGNATION DES COMMANDES

① Touche d'enregistrement
② Touche de lecture
③ Touche de retour rapide
④ Touche d'avance rapide
⑤ Touche d'éjection/arrêt
⑥ Touche de pause
⑦ Interrupteur général
⑧ Compteur de contrôle
⑨ Touche de remise à zéro
⑩ Interrupteur de système 3D
⑪ Sélecteur de bande
⑫ Témoin de fonctionnement
⑬ Témoin de mode de système 3D
⑭ Réglage d'égaliseur graphique
⑮ Commande de volume (principal)
⑯ Témoin FM stéréo
⑰ Sélecteur de source
⑱ Sélecteur de bande
⑲ Commande d'accord de stations
⑳ Microphone incorporé
㉑ Boutons d'accord de stations FM préréglées [pour E, E(BS)]
㉒ Protection des boutons d'accord de stations FM préréglées [pour E, E(BS)]
㉓ Témoin d'accord de stations FM préréglées [pour E, E(BS)]
㉔ Touche de réglage manuel FM [pour E, E(BS)]
㉕ Touches de préaccord FM [pour E, E(BS)]
㉖ Antenne-tige
㉗ Prise d'entrée CD/Ligne
㉘ Selecteur mode FM/RIF/AFC
㉙ Prise d'alimentation secteur
㉚ Prise de casque d'écoute
㉛ Touche d'inversion du sens de défilement [pour W, AU, H, HC]
㉜ Sélecteur de tension [pour W]
㉝ Prise CC [pour W]
– Pour TRK- 3D75 uniquement –
㉞ Commande de volume (ambiance)
㉟ Connecteur pour haut-parleur d'ambiance
㊱ Haut-parleur d'ambiance
㊲ Sélecteur d'ambiance
㊳ Témoin d'ambiance



SAFETY PRECAUTION

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts.
   Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with ⚠ in the circuit diagram and printed wiring board.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS

General Section

Power supply
AC 120V, 60Hz [H, HC]
AC 220V, 50Hz [E]
AC 110–127V/200–220V/
230–250V, 50/60Hz [W]
240V, 50Hz [E (BS), AU]

Batteries
DC 15V
(IEC R20 x 10 or equivalent)

Power (mains) Consumption
[TRK-3D70]
60W
[TRK-3D75]
80W

Power output
100W P.M.P (AC operation)
[E, E(BS)]
200W P.M.P (AC operation)
[W, AU, H, HC]
31W (8W x 2 +15W)
(AC 10%THD)

Dimensions (WxHxD)
[TRK-3D70]
562 x 201 x 180 mm
[E, E(BS)]
562 x 208 x 180 mm
[W, AU, H, HC]
[TRK-3D75]
842 x 201 x 180 mm
[E, E(BS)]
842 x 208 x 180 mm
[W, AU, H, HC]

Weight
[TRK-3D70]
6.8 kg [E, E(BS)]
7.0 kg [W, AU, H, HC]
(including battery)
[TRK-3D75]
8.5kg [E, E(BS)]
8.7kg [W, AU, H, HC]
(including battery)

Semiconductors
[TRK-3D70]

ICs:	6
Transistors:	17 [E, E(BS)], 14 [W, AU, H, HC]
Diodes:	36 [E, E(BS), AU] 16 [W], 14 [H, HC, AU]
LEDs:	3 [E, E(BS)] 4 [W, AU, H, HC]

[TRK-3D75]

ICs:	8
Transistors:	18 [E, E(BS)] 16 [W, AU, H, HC]
Diodes:	37 [E, E(BS)] 17 [W] 16 [AU, H, HC]
LEDs:	4 [E, E(BS)] 5 [W, AU, H, HC]

Radio Section

Circuit System
FM/SW/MW/LW 4-band
superheterodyne [E, E(BS)]
FM/SW_1/SW_2/MW 4-band
superheterodyne [W, AU, H, HC]

Tuning Range
[E, E(BS)]
FM: 87.5 to 108 MHz
SW: 6.0 to 18.0 MHz
MW: 530 to 1,605 kHz
LW: 150 to 285 kHz
[W, AU, H, HC]
FM: 88 to 108 MHz
SW_2: 7.0 to 22.0 MHz
SW_1: 2.3 to 7.0 MHz
MW: 530 to 1,605 kHz

Sensitivity

FM:	13 dB (pra.), 5 dB (max)	[E, E(BS)]
SW:	30 dB (pra.), 15 dB (max)	[E, E(BS)]
MW:	50 dB (pra.), 35 dB (max)	[E, E(BS)]
LW:	55 dB (pra.), 40 dB (max)	[E, E(BS)]
FM:	13 dB (pra.), 5 dB (max)	[W, AU, H, HC]
SW_2:	30 dB (pra.), 20 dB (max)	[W, AU, H, HC]
SW_1:	48 dB (pra.), 35 dB (max)	[W, AU, H, HC]
MW:	50 dB (pra.), 35 dB (max)	[W, AU, H, HC]

Intermediate Frequency
FM: 10.7 MHz
AM: 465 kHz [E, E(BS)]
AM: 455 kHz [W, AU, H, HC]

Antennas (Aerials)
FM/SW/SW_2: Rod antenna
SW_1/MW/LW: Built-in Ferrite-core antenna

Tape Recorder Section

Tape
Compact Cassette (C30, C60, C90)

Tracks system
4-track (2-channel stereo)

Tape Speed
4.75 cm/sec

Recording System
AC bias 57 kHz

Erasing System
Magnet

Playback Frequency Response
Metal tape:
60 to 12,000 Hz [E, E(BS)]
50 to 14,000 Hz [W, AU, H, HC]
(HITACHI ME 90)
High bias tape (Chromium tape):
60 to 11,000 Hz [E, E(BS)]
50 to 13,000 Hz [W, AU, H, HC]
(HITACHI SX90, HITACHI EX90)
Normal tape:
60 to 10,000 Hz [E, E(BS)]
50 to 12,000 Hz [W, AU, H, HC]

Signal to Noise Ratio
45 dB

Wow and Flutter
0.25% (WRMS)

Crosstalk Between Tracks
60 dB [E, E(BS)]
55 dB [W, AU, H, HC]

Between Channels
30 dB

Erasing Ratio
60 dB

Distortion
3%

Head
Permalloy

Motor
Electrical DC micro motor

Input Sensitivity and Impedance
CD/Line in: 600 mV, 25 kohms

Output Level and Load Impedance
Headphones: 8 ohms to 300 ohms
Ext. speakers (Surround): 16 ohms

PRECAUTIONS DE SECURITE

Les précautions suivantes doivent être observées chaque fois qu'une réparation doit être faite.

1. Etant donné que de nombreux composants de l'appareil possèdent des caractéristiques relatives à la sécurité, utiliser uniquement des pièces de rechange d'origine Hitachi pour effectuer un remplacement. Ceci se rapporte notamment aux pièces critiques du bloc d'alimentation qui ne doivent en aucun cas être remplacées par celles d'autres fabricants. Les pièces critiques sont accompagnées du symbole ⚠ dans le schéma de montage et sur le schéma de plaque de câblage.
2. Avant de retourner l'appareil réparé au client le technicien doit procéder à un essai complet pour s'assurer qu'il ne présente aucun danger de chocs électriques.

CARACTERISTIQUES TECHNIQUES

Section General

Secteur
CA 120V, 60Hz [H, HC]
CA 220V, 50Hz [E]
CA 110–127V/200V–220V/230–250V, 50/60Hz [W]
240V, 50Hz [E (BS), AU]

Piles
CC15V (IEC R20 x 10 piles ou équivalent)

Consommation (secteur)
[TRK-3D70]
60W
[TRK-3D75]
80W

Sortie de puissance
100W P.M.P. (Alimentation CA)
[E, E(BS)]
200W P.M.P (Alimentation CA)
[W, AU, H, HC]
31W (8W x 2 + 15W) (CA 10% de D.H.T.)

Dimensions (LxHxP)
[TRK-3D70]
562 x 201 x 180 mm
[E, E(BS)]
562 x 208 x 180 mm
[W, AU, H, HC]
[TRK-3D75]
842 x 201 x 180 mm
[E, E(BS)]
842 x 208 x 180 mm
[W, AU, H, HC]

Poids
[TRK-3D70]
6.8 kg [E, E(BS)]
7.0 kg [W, AU, H, HC]
(avec piles)
[TRK-3D75]
8,5 kg [E, E(BS)]
8.7 kg [W, AU, H, HC]
(avec piles)

Semi-conducteurs

[TRK-3D70]	
IC:	6
Transistors:	17 [E, E(BS)]
	14 [W AU, H, HC]
Diodes:	36 [E, E(BS), AU]
	16 [W], 14 [H, HC, AU]
LED:	3 [E, E(BS)]
	4 [W, AU, H, HC]
[TRK-3D75]	
IC:	8
Transistor:	18 [E, E(BS)]
	16 [W, AU, H, HC]
Diodes:	37 [E, E(BS)]
	17 [W]
	16 [AU, H, HC]
LED:	4 [E, E(BS)]
	5 [W, AU, H, HC]

Section Radio

Système d'écoute
FM/OC/PO/GO 4 gammes Superhétérodyne [E, E(BS)]
FM/OC_2/OC_1/PO 4 gammes Superhétérodyne [W, AU, H, HC]

Gammes d'accord
[E, E(BS)]
FM: De 87,5 à 108 MHz
OC: De 6,0 à 18,0 MHz
PO: De 530 à 1.605 kHz
GO: De 150 à 285 kHz
[W, AU, H, HC]
FM: De 88 à 108 MHz
OC_2: De 7,0 à 22,0 MHz
OC_1: De 2,3 à 7,0 MHz
PO: De 530 à 1.605 kHz

Sensibilité

FM:	13 dB (pra.), 5 dB (max)	[E, E(BS)]
OC:	30 dB (pra.), 15 dB (max)	
PO:	50 dB (pra.), 35 dB (max)	
GO:	55 dB (pra.), 40 dB (max)	
FM:	13 dB (pra.), 5 dB (max)	[W, AU, H, HC]
OC_2:	30 dB (pra.), 20 dB (max)	
OC_1:	48 dB (pra.), 35 dB (max)	
PO:	50 dB (pra.), 35 dB (max)	

Fréquence Intermédiaire
FM: 10,7 MHz
AM: 465 kHz [E, E(BS)]
AM: 455 kHz [W, AU, H, HC]

Antenne (Aérien)
FM/OC/OC_2: Antenne-tige
OC_1/PO/GO: Antenne incorporée à noyau de ferrite

Section d'Enregistreur

Bande
Minicassette (30, C60, C90)

Système de piste
4 pistes (2 canaux stéréo)

Vitesse de défilement
4,75 cm/sec

Système d'enregistreme
Polarisation à courant alternative 57 kHz

Système d'effacement
Aimant

Réponse de fréquence de lecture
Bande métalique: De 60 à 12.000 Hz [E, E(BS)]
De 50 à 14.000 Hz [W, AU, H, HC]
(HITACHI ME90)
Bande haut bias (bande au chrome):
De 60 à 11.000 Hz [E, E(BS)]
De 50 à 13.000 Hz [W, AU, H, HC]
(HITACHI SX90, HITACHI EX90)
Bande normale: De 60 à 10.000 Hz [E, E(BS)]
De 50 à 12.000 Hz [W, AU, H, HC]

Rapport signal/bruit
45 dB

Pleurage et scintillement
0,25% (WRMS)

Diàphonie

Entre traces
60 dB [E, E(BS)]
55 dB [W, AU, H, HC]

Entre canaux
30 dB

Puissance d'enregistrement
60 dB

Distorsion
3%

Tête
Permalloy

Moteur
Electrique de courant continu

Sensibilité d'entrée et impédance
CD/Entrée de ligne: 600mV, 25 kohms

Niveau de sortie et impédance
Casque d'écoute: De 8 ohms à 300 ohms
Haut-parleurs externes (ambiance): 16 ohms

DISASSEMBLY

1. Cassette Lid (For Only Cassette Lid Assembly) (Fig. 1)

Push the cassette lid arm in the direction of the arrow using a flat-tip screwdriver and pull the cassette lid towards the from to remove it.

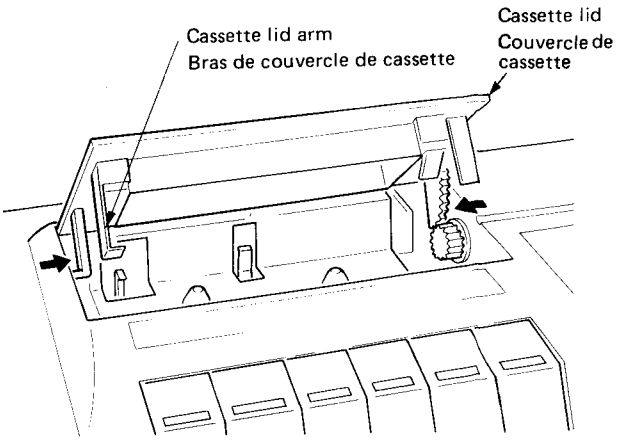


Fig. 1

2. Installing the Cassette Lid (For Only Cassette Lid Assembly) (Fig. 2)

(1) Securely hook the boss of the cassette lid at the spring as shown in Fig. 2.

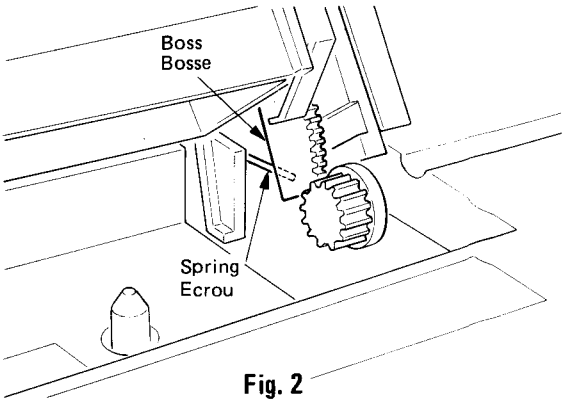


Fig. 2

3. Top Panel (Fig. 3, 4, 5)

(1) Remove the Ⓐ fixing screws (6) shown in Fig. 3, 4, 5.

(2) Press the EJECT button to open the cassette lid and lift the top panel holding the rod antenna side to remove it.

4. Front Case (Fig. 3, 4, 5, 7)

Remove the Ⓑ fixing screws (11), pull the front case slightly towards you and remove the Ⓐ connector linking the speaker to the PA P.W.B.

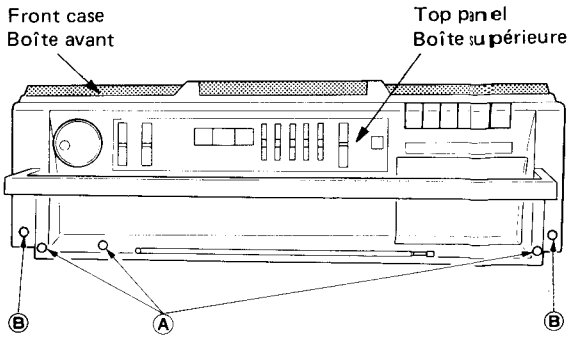


Fig. 3

5. Cassette Chassis (Fig. 6)

After removing the top panel, remove the Ⓒ fixing screws (4) and connectors and Ⓑ and Ⓒ.

– For W, AU, H, HC only –

Remove the connector Ⓕ.

6. MA P.W.B. (Fig. 6)

After removing the top panel, remove the Ⓓ fixing screws (5) and the connectors Ⓑ and Ⓓ.

– For W, AU, H, HC only –

Remove the connector Ⓕ.

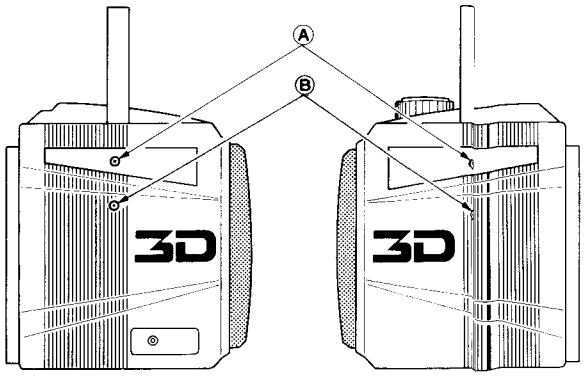


Fig. 4

7. PA P.W.B. (Fig. 7)

After removing the front case, remove the Ⓔ (4), Ⓕ (1) and Ⓖ (2) fixing screws, and connectors Ⓐ, Ⓒ and Ⓔ.

– For TRK-3D75 only –

8. Surround Speakers (Fig. 8)

Press on the speaker stopper, lift the speaker in the direction of the arrow, then move the speaker to the outer side and detach it.

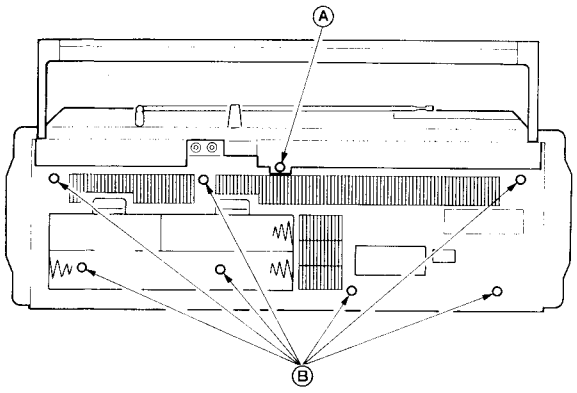


Fig. 5

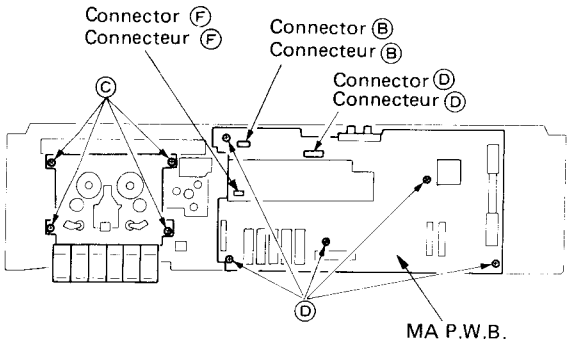


Fig. 6

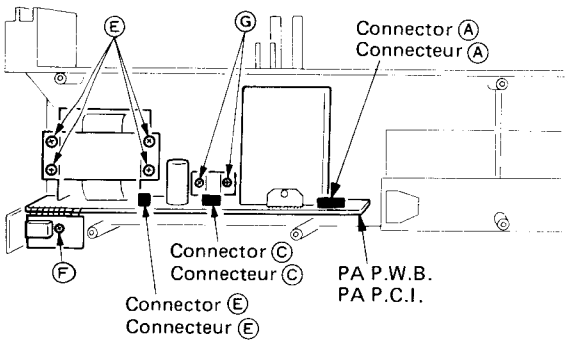


Fig. 7

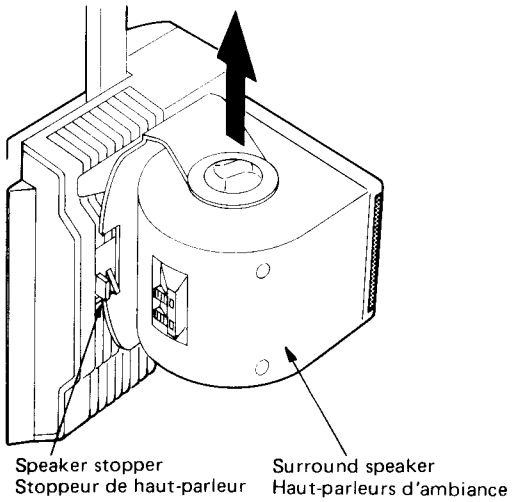


Fig. 8

DEMONTAGE

1. Couvercle de cassette (Seulement pour l'ensemble de couvercle de cassette) (Fig. 1)

Poussez le bras du couvercle de cassette dans la direction de la flèche en utilisant un tournevis à bout plat et tire le couvercle de cassette vers la forme pour l'enlever.

2. Installation du couvercle de cassette (Seulement pour l'ensemble de couvercle de cassette) (Fig. 2)

(1) Crochez soigneusement la bosse du couvercle de cassette à l'écrou comme montré sur Fig. 2.

3. Boîte supérieure (Fig. 3, 4, 5)

(1) Enlevez 6 vis d'assemblage Ⓐ montrées sur Fig. 3, 4, 5.

(2) Pressez la touche d'éjection (EJECT) pour ouvrir le couvercle de cassette et soulevez le paneau supérieur tout en maintenant le côté rouge d'antenne pour l'enlever.

4. Boîte avant (Fig. 3, 4, 5, 7)

Enlevez les Ⓑ vis d'assemblage (11), tirez la cassette avant légèrement vers vous et enlevez le Ⓐ connecteur attachement le haut-parleur à la P.C.I. PA (POWER).

5. Châssis de cassette

Après avoir enlevé la boîte supérieure, enlevez les Ⓒ vis d'assemblage (4) et les connecteurs Ⓑ et Ⓒ.

– Pour W, AU, H, HC uniquement –

Enlevez le connecteur Ⓕ.

6. MA P.C.I.

Après avoir enlevé la boîte supérieure, enlevez les Ⓓ vis d'assemblage (5) et les connecteurs Ⓑ et Ⓓ.

– Pour W, AU, H, HC uniquement –

Enlevez le connecteur Ⓕ.

7. PA P.C.I.

Après avoir enlevé la boîte avant, enlevez les Ⓔ (4), Ⓕ (1) et Ⓖ (2) vis d'assemblage, et les connecteurs Ⓐ, Ⓒ et Ⓔ.

– Pour TRK-3D75 uniquement –

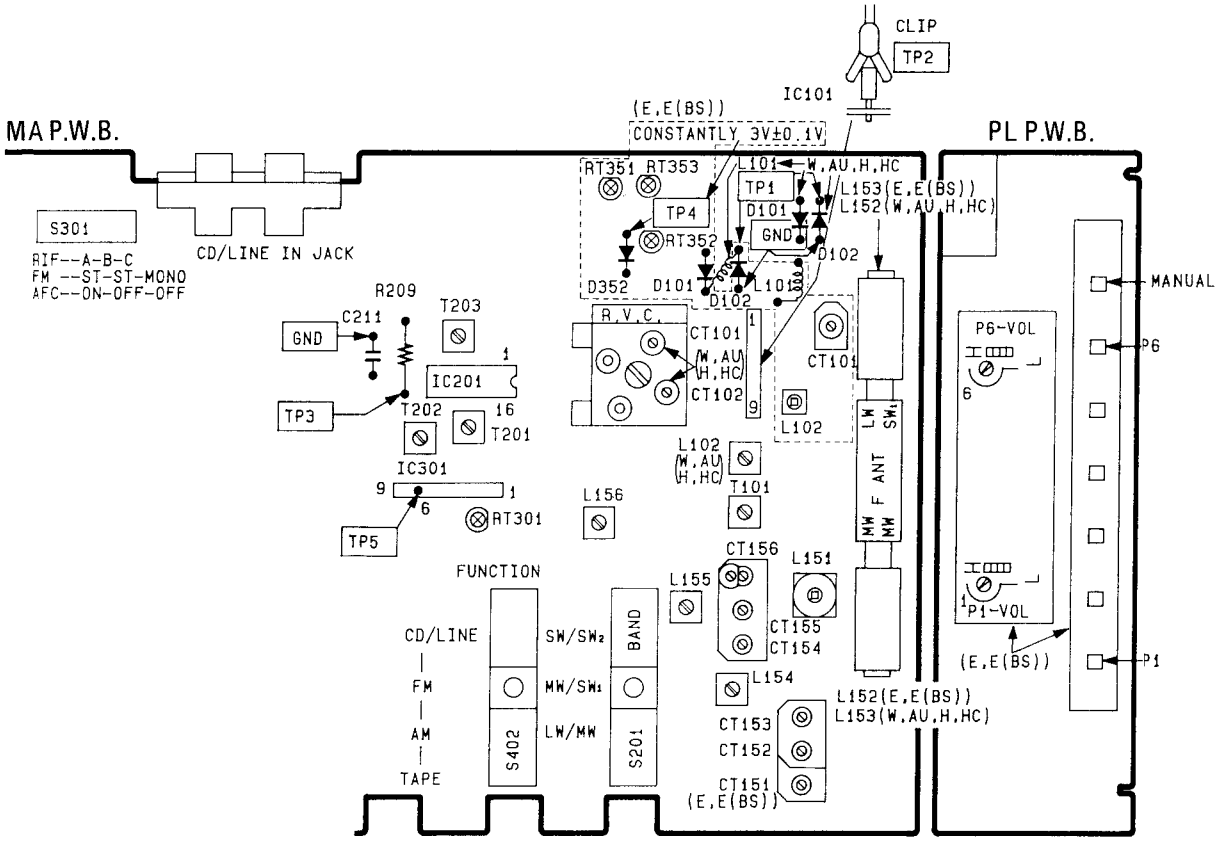
8. Haut-parleurs d'ambiance

Appuyez sur le stoppeur pour le relâcher et glissez le haut-parleur comme indiqué pour le retirer.

*P.C.I. = plaquette de circuit imprimée

ADJUSTMENT

ADJUSTMENT PARTS LOCATION
REGLAGE DE LOCATION DES PIECES



1. Radio Section

FM Section

Step		Adjustment Item	Measuring Instrument and Connection			Genescope or Signal Generator Frequency	Dial Pointer Position	Adjust	Reading
			Measuring Instrument	Input Terminal	Output Terminal				
1	(1)	FM IF	Turn T202 fully counterclockwise.						
	(2)	S-Curve	● Genescope (10.7 MHz)	TP2	TP3	10.7 MHz	Highest	T101 T202	Note 1 Note 2
2 For E, E (BS)		FM OSC (Covering)	● FM signal generator (400 Hz, 30% dev.) ● Oscilloscope ● VTVM	TP1 (thru FM dummy antenna) (Note 3)	TP 3	See 1-2 FM covering (page 9)			
2 For W/AU H/HC	(1)					87 MHz	Lowest	L102	Max
	(2)					109 MHz	Highest	CT102	
	(3)					Repeat steps (1) and (2)			
3	(1)	FM ANT. (Tracking)				90 MHz	90 MHz	L101	Max
	(2)					106 MHz	106 MHz	CT101	
	(3)					Repeat steps (1) and (2)			
4	(1)	FM MPX (Multiplex) free run	● Frequency counter	Connect a 10μF 25V electrolytic capacitor between the No. 1 pin of IC301 and the ground	TP5	—	—	RT301	38 kHz ± 50 Hz (Note 4)

AM Section

	Step		Adjustment Item	Measuring Instrument and Connection			Genescope or Signal Generator Frequency	Dial Pointer Position	Adjust	Reading
				Measuring Instrument	Input Terminal	Output Terminal				
For E/E (BS)	1	(1)	AM IF	● Genescope (465 kHz)	Ferrite-core antenna (Note 5)	TP3	465 kHz	Highest	T201 T203	Note 6
		(2)					Repeat step (1)			
	2	(1)	LW OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	145 kHz	Lowest	L156	Max.
		(2)					290 kHz	Highest	CT156	
		(3)					Repeat steps (1) and (2)			
	3	(1)	LW ANT. (Tracking)				160 kHz	160 kHz	L153	Max.
		(2)					270 kHz	270 kHz	CT153	
		(3)					Repeat steps (1) and (2)			
	4	(1)	MW OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	515 kHz	Lowest	L155	Max.
		(2)					1,650 kHz	Highest	CT155	
		(3)					Repeat steps (1) and (2)			
	5	(1)	MW ANT. (Tracking)				600 kHz	600 kHz	L152	Max.
		(2)					1,400 kHz	1400 kHz	CT152	
		(3)					Repeat steps (1) and (2)			
	6	(1)	SW OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	TP1 (thru SW dummy antenna) (Note 7)	TP3	5.8 MHz	Lowest	L154	Max.
		(2)					18.5 MHz	Highest	CT154	
		(3)					Repeat steps (1) and (2)			
	7	(1)	SW ANT. (Tracking)				6.5 MHz	6.5 MHz	L151	Max.
		(2)					16 MHz	16 MHz	CT151	
		(3)					Repeat steps (1) and (2)			
For W/AU/H/HC	8	(1)	AM IF	● Genescope (455 kHz)	Ferrite-core antenna (Note 5)	TP3	455 kHz	Highest	T201 T203	Note 6
		(2)					Repeat step (1)			
	9	(1)	MW OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	515 kHz	Lowest	L156	Max.
		(2)					1,650 kHz	Highest	CT156	
		(3)					Repeat steps (1) and (2)			
	10	(1)	MW ANT. (Tracking)				600 kHz	600 kHz	L153	Max.
		(2)					1,400 kHz	1400 kHz	CT153	
		(3)					Repeat steps (1) and (2)			
	11	(1)	SW1 OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	Ferrite-core antenna (Note 5)	TP3	2.2 MHz	Lowest	L155	Max.
		(2)					7.3 MHz	Highest	CT155	
		(3)					Repeat steps (1) and (2)			
	12	(1)	SW1 ANT. (Tracking)				2.7 MHz	2.7 MHz	L152	Max.
		(2)					6.3 MHz	6.3 MHz	CT152	
		(3)					Repeat steps (1) and (2)			
	13	(1)	SW2 OSC. (Covering)	● AM signal generator (400 Hz, 30 % mod.) ● VTVM ● Oscilloscope	TP1 (thru SW dummy antenna) (Note 7)	TP3	6.7 MHz	Lowest	L154	Max.
		(2)					23 MHz	Highest	CT154	
		(3)					Repeat steps (1) and (2)			
	14	(1)	SW2 ANT. (Tracking)				8 MHz	8 MHz	L151	Max.

1-2. FM Covering

*( ) For W. Germany & Italy

Step			Signal Generator Frequency	Preset CH. and Dial Pointer Position	Voltage of TP4	Adjust	Reading	Note
1	(1)	Preset Covering	–	–	3.0V ± 0.1	RT353	DC volt. meter (★1)	Connect the DC volt. meter to TP.4
	(2)		87 MHz * (87.5 MHz)	PI ON Dial Pointer Lowest	–	L102	TP3 MAX	Fix the Vol.-P1 Frequency Lowest
	(3)		109 MHz * (108 MHz)	P6 ON Dial Pointer Highest	3.0V ± 0.1	RT351 RT353	TP3 MAX	Fix the Vol.-P6 Frequency Highest
	(4)		Repeat steps (1) and (2)					
2	(1)	Manual Covering	87 MHz * (87.5 MHz)	Manual ON Dial Pointer Lowest	3.0V ± 0.1	RT352 RT353	TP3 MAX	
	(2)		109 MHz * (108 MHz)	–	–	–		Only check

(★1) Plaease use high internal impedance DC volt. meter.

REGLAGE

1. Section radio

Section FM

Pas		Article d'ajustage	Instrument de mesure et connexion			Genescope ou signal de générateur des fréquences	Position d'indicateur de numéro-tation	Ajustez	Lecture
			Instrument de mesure	Borne d'entrée	Borne de sortie				
1			Tournez T202 complètement vers le gauche						
	(1)	FM IF	• Genescope (10,7 MHz)	TP2	TP3	10,7 MHz	Supérieur	T101	Remarque 1
	(2)	Courbe-S						T202	Remarque 2
2 Pour E/E (BS)		FM OSC (re-couvrement)	• Signal générateur FM (400 Hz, 30% dev.) • Oscilloscope • VTVM	TP1 (par antenne artificielle FM) (Remarque 3)	TP3	Voir 1-2 FM recouverement (page 9)			
2 Pour W/AL H/HC	(1)					87 MHz	Inférieur	L102	Max.
	(2)					109 MHz	Supérieur	CT102	
	(3)					Répétez pas (1) et (2)			
3	(1)	FM ANT. (Alignement)				90 MHz	90 MHz	L101	Max.
	(2)					106 MHz	106 MHz	CT101	
	(3)					Répétez pas (1) et (2)			
4	(1)	FM MPX. (free run multiplex)	• Compteur des fréquences	Connectez un condensateur électrolytique de 10 µF 25 V entre l'épingle No. 1 de IC301 et la terre.	TP5	–	–	RT301	38 kHz ±50 Hz (Remarque 4)

Section AM

	Pas		Article d'ajustage	Instrument de mesure et connexion: Instrument de mesure	Borne d'entrée	Borne de sortie	Genescope ou signal de générateur des fréquences	Position d'indicateur de numérotation	Ajustez	Lecture
Pour E/E (BS)	1	(1)	AM IF	• Genescope (465 kHz)	Antenne tore de ferrite (Remarque 5)	TP3	465 kHz	Supérieur	T201 T203	Remarque 6
		(2)					Répétez pas (1)			
	2	(1)	OSC. GO (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	Antenne tore de ferrite (Remarque 5)	TP3	145 kHz	Inférieur	L156	Max.
		(2)					290 kHz	Supérieur	CT156	
		(3)					Répétez pas (1) et (2)			
	3	(1)	ANT. GO (Alignement)				160 kHz	160 kHz	L153	Max.
		(2)					270 kHz	270 kHz	CT153	
		(3)					Répétez pas (1) et (2)			
	4	(1)	OSC. PO (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	Antenne tore de ferrite (Remarque 5)	TP3	515 kHz	Inférieur	L155	Max.
		(2)					1650 kHz	Supérieur	CT155	
		(3)					Répétez pas (1) et (2)			
	5	(1)	ANT. PO (Alignement)				600 kHz	600 kHz	L152	Max.
		(2)					1400 kHz	1400 kHz	CT152	
		(3)					Répétez pas (1) et (2)			
	6	(1)	OSC. OC (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	TP1 (par antenne artificielle OC) (Remarque 7)	TP3	5,8 MHz	Inférieur	L154	Max.
		(2)					18,5 MHz	Supérieur	CT154	
		(3)					Répétez pas (1) et (2)			
	7	(1)	ANT. OC (Alignement)				6,5 MHz	6,5 MHz	L151	Max.
		(2)					16 MHz	16 MHz	CT151	
		(3)					Répétez pas (1) et (2)			
Pour W/AU/H/HC	8	(1)	AM IF	• Genescope (455 kHz)	Antenne tore de ferrite (Remarque 5)	TP3	455 kHz	Supérieur	T201 T203	Remarque 6
		(2)					Répétez pas (1)			
	9	(1)	OSC. PO (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	Antenne tore de ferrite (Remarque 5)	TP3	515 kHz	Inférieur	L156	Max.
		(2)					1650 KHz	Supérieur	CT156	
		(3)					Répétez pas (1) et (2)			
	10	(1)	ANT. PO (Alignement)				600 kHz	600 kHz	L153	Max.
		(2)					1400 kHz	1400 kHz	CT153	
		(3)					Répétez pas (1) et (2)			
	11	(1)	OSC. OC1 (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	Antenne tore de ferrite (Remarque 5)	TP3	2,2 MHz	Inférieur	L155	Max.
		(2)					7,3 MHz	Supérieur	CT155	
		(3)					Répétez pas (1) et (2)			
	12	(1)	ANT. OC1 (Alignement)				2,7MHz	2,7 MHz	L152	Max.
		(2)					6,3 MHz	6,3 MHz	CT152	
		(3)					Répétez pas (1) et (2)			
	13	(1)	OSC. OC2 (recouvrement)	• Signal générateur AM (400 Hz, 30% mod.) • VTVM • Oscilloscope	TP1 (par antenne artificielle OC) (Remarque 7)	TP3	6,7 MHz	Inférieur	L154	Max.
		(2)					23 MHz	Supérieur	CT154	
		(3)					Répétez pas (1) et (2)			
	14	(1)	ANT. OC2 (Alignement)				8 MHz	8 MHz	L151	Max.

* ( ) Pour l'Allemagne de l'Ouest et l'Italie

1-2 Recouvrement FM

Pas			Signal de générateur des fréquences	Préréglage CAN. et position de composition de numéro	Tension de TP 4	Ajustage	Lecture	Remarque
1	(1)	Préréglage de recouvrement	–	–	3.0V ± 0,1	RT353	Voltmètre CC (★1)	Connectez le voltmètre CC au TP4.
	(2)		87 MHz *(87.5 MHz)	PI ON-Position de composition de numéro inférieure	–	L102	TP3 MAX	Régler la fréquence de Vol.-P1 au plus faible.
	(3)		109 MHz *(108 MHz)	P6 ON-Position de composition de numéro supérieure	3,0V ± 0,1	RT351 RT353	TP3 MAX	Régler la fréquence de Vol.-P6 au plus fort.
	(4)		Répétez pas (1) et (2)					
2	(1)	Recouvrement à la main	87 MHz * (87.5 MHz)	Manuel ON-Position de composition de numéro inférieure	3.0V ± 0.1	RT352 RT353	TP3 MAX	
	(2)		109 MHz * (108 MHz)	–	–	–		Contrôle seulement

(★1) Ayez soin d'utiliser le voltmètre CC de forte impédance intérieure.

Note:

1. Feed in a weak signal to TP2 from the genescope. Adjust T101 for maximum gain and the waveform indicated in Fig. 9. If the center of the waveform cannot be lined up on the marker, adjust the right/left balance.
2. Use the T202 core to form the S-curve shown in Fig. 10. Adjust the symmetry of A and B about point C for linearity.
3. FM dummy antenna is shown in Fig. 11.
4. Connect the frequency counter to TP5 and connect a 330 kohms resistor TP5 to GND.
5. Connect the output of AM signal generator to the loop antenna, and put it near to the ferrite-core antenna.
6. Feed in a weak signal from the genescope. Adjust T201, T203 for maximum gain and the waveform of Fig. 12.
7. SW. dummy antenna is shown in Fig. 13.

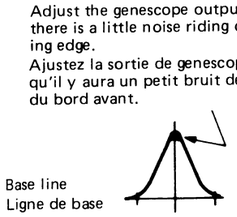

Adjust the genescope output so that there is a little noise riding on the leading edge.
Ajustez la sortie de genescope de sorte qu'il y aura un petit bruit descendant du bord avant.
Base line
Ligne de base

Fig. 9

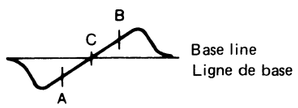
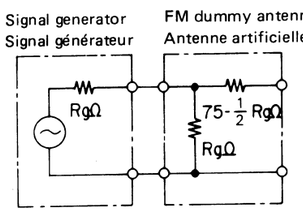


Fig. 10



Rg: SG's output impedance
Rg: Impédance de sortie de SG

Fig. 11

Remarque:

1. Alimentez un signal faible au TP2 du genescope. Ajustez T101 pour un profit maximal et la forme d'onde indiquée dans Fig. 9. Si le centre de la forme d'onde ne peut pas être alignée sur le marquer, ajustez la balance droite/gauche.
2. Utilisez le tore T202 pour former la courbe-S montrée dans Fig. 10. Ajustez la symmétrie de A et B avec point C pour la linéarité.
3. Antenne artificielle FM est montrée dans Fig. 11.
4. Connectez le compteur des fréquences au TP5 et connectez le résisteur TP5 à 330 k ohms au GND.
5. Connectez la sortie du signal générateur AM à l'antenne loop et placez l'antenne près de l'antenne tore de ferrite.
6. Alimentez un signal faible du genescope. Ajustez T210, T203 pour un profit maximal et la forme d'onde de Fig. 12.
7. Antenne artificielle OC est montrée dans Fig. 13.

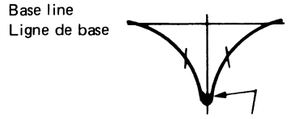
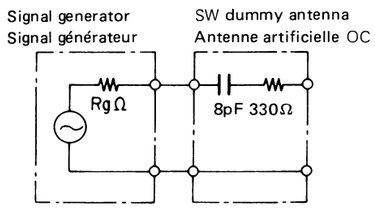

Base line
Ligne de base
Adjust the genescope output so that there is a little noise riding on the leading edge.
Ajustez la sortie de genescope de sorte qu'il y aura un petit bruit descendant du bord avant.

Fig. 12



Rg: SG's output impedance
Rg: Impédance de sortie de SG

2. Tape Recorder Section

Perform the following adjustments in the sequence stated after cleaning the head, pressure roller, and capstan with a head cleaning stick moistened in alcohol.

Step	Adjustment Item	Measuring Instrument and Connection			Check Tape	Mode	Adjusted Position	Adjusted Value	Remarks
		Measuring Instrument	Input Terminal	Output Terminal					
1	Tape speed	● Frequency counter	—	Speaker terminal (4Ω load)	Tape speed adjustment tape (3 kHz)	Playback	Semivariable resistor in the motor (Fig. 14)	3 kHz ± 20 Hz	Note 1, 3
2	Head azimuth	● VTVM	—	Speaker terminal (4Ω load)	Head azimuth adjustment tape (10 kHz)	Playback	Azimuth adjusting screw	Output max.	Note 2, 4

Note:

1. Adjsut within 30 sec. after heat-running for more than 20 minutes.
2. When the maximum values of both channels are different, adjust to the maximum value of the L channel. In this case, the difference between the maximum values of both channels should be within 2 dB.

– For W, AU, H, HC only –

3. Playback the tape in the reverse direction and check if the reading is 3 kHz ± 20 Hz.
   If the reading is outside the range of adjustment value, make readjustment so that the reading would be 2,980 Hz to 3,025 Hz both in the forward and reverse directions.
4. Check that the adjustment value is also satisfied in the reverse direction.

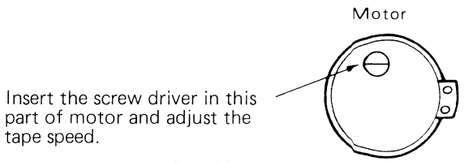


Fig. 14

2. Section de l'appareil d'enregistrement

Effectuez les ajustages suivants le chapître après le nettoyage des têtes après nettoyer la tête, du galetpresseur et cabestan avec un batôn de nettoyage imbibé d'alcool.

Pas	Article d'ajustage	Instrument de mesure et connexion			Contrôle de bande	Mode	Position ajustée	Valeur ajustée	Remarques
		Instrument de mesure	Borne d'entrée	Borne de sortie					
1	Vitesse de bande	● compteur des fréquences	–		Bande d'ajustage de la vitesse (3kHz)	Lecture	Resisteur semi-variable dans le moteur (Fig. 14)	3 kHz±20 Hz	Remarque 1, 3
2	Tête azimuth	● VTVM	–	Borne de hautparleur (charge de 4Ω)	Tête azimuth bande d'ajustage (10 kHz)	Lecture	Vis d'ajustage azimuth	Sortie max.	Remarque 2, 4

Remarques:

1. Ajustez avant que 30 secondes soient élapsées après échauffement pour plus de 20 minutes.
2. Quand les valeurs maximales des deux canaux sont différentes, réglez alors sur la valeur maximale du canal gauche. Dans ce cas, la différence entre les valeurs maximales des deux canaux doivent etre au dedans de 2dB.

– Pour W, AU, H, HC uniquement –

3. Reproduisez la bande en direction inverse et vérifiez que la lecture est de 3 kHz ±20 Hz.
   Si la lecture déborde de la gamme des valeurs de réglage, effectuez un nouveau réglage qui donne une lecture de 2.980 Hz à 3.025 Hz aussi bien dans le sens d'avance de la lecture que dans le sens inverse.
4. Contrôlez aussi que la valeur du réglage est satisfaisante dans le sens inverse.

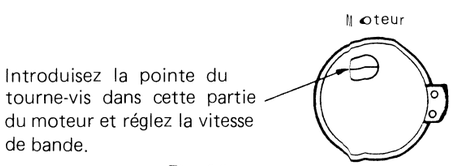


Fig. 14

INSPECTION OF MECHANISM

For E, E(BS)

Item	Checking item		Reference value	Remarks
1	Pressure of pressure roller		300 – 500g	Note
2	Take-up torque		30 – 60 g· cm	
3	Fast forward/Rewind torque		50g·cm or more	
4	Auto-Stop sensor operation force		40 – 75 g	
5	Brake torque		15 g·cm or more	Measured in stop mode
6	Back tension torque	Take-up	1 – 6 g·cm	
		Supply	1 – 4 g·cm	
7	Flywheel thrust gap		0.05 – 0.5 mm	
8	Button operation force	Play button	1.1 kg or less	
		FF button	0.8 kg or less	
		Rewind button	1.1 kg or less	
		Eject button	0.6 kg or less	
		Record button	1.0 kg or less	
		Pause button	1.0 kg or less	

Except E, E(BS)

Item	Checking	Reference Value	Remarks
1.	Pressure roller compression strength	270 – 420g	Note
2.	Playback torque	35 – 70g	
3.	FF/REW torque	80g	
4.	Take up back-tension	1.5 – 6.0g·cm	
5.	Tape drive force	100 g·min	
6.	Axial play of flywheel	0.05 – 0.5 mm	

Note:
Set this unit in the playback mode and press the pressure roller in the direction of the arrow using a fan type tension gauge, and measure the pressure when the pressure roller is released form the capstan.

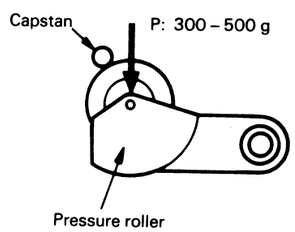


Fig. 15

CONTROLE DE MECANISME

Pour E, E(BS)

Article	Article de contrôle		Valeur de référence	Remarques
1	Pressure du galet-presseur		300 – 500g	Remqrque
2	Force de torsion cueilleure		30 – 60 g·cm	
3	Force de torsion d'avance rapide/de rebobinage		50g·cm ou plus	
4	Senseur de force d'opération pour arrêt automatique		40 – 75 g	
5	Force de torsion arrière		15 g•cm ou plus	Mesuré en mode d'arrêt
6	Force de torsion de tension arrière	Cueilleur	1 – 6 g•cm	
		Amenée	1 – 4 g•cm	
7	Trou de poussée de roue volante		0,05 – 0,5 mm	
8	Force d'opération de touche	Touche de lecture	1,1 kg ou moins	
		Touche d'avance rapide	0,8 kg ou moins	
		Touche de rebobinage	1,1 kg ou moins	
		Touche d'éjection	0,6 kg ou moins	
		Touche d'enregistrement	1,0 kg ou moins	
		Touche de pause	1,0 kg ou moins	

Sauf E, E(BS)

Article	Article de contrôle	Valeur de référence	Remarques
1	Galet-presseur rigueur de compression	270 – 420 g	Remarque
2.	Force de torsion de lecture	35 – 70 g	
3.	Force de torsion d'avance rapide/de rebobinage	80 g	
4.	Tension arrière cueilleure	1,5 – 6,0 g•cm	
5.	Force d'avance de la bande	100 g•min	
6.	Lecture axiale de route voulante	0,05 – 0,5 mm	

Remarque:
Réglez cet appareil en mode de lecture et poussez le galet-presseur dans la direction de la fièche en utilisant un éventail de type tension jauge, et mesure la pression quand le galet-pressure est relâché du cabestan.

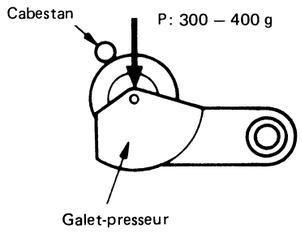


Fig. 15

LUBRICATION

Lubricate one or two drops of oil to rotating point or lubricate grease to sliding point.
Lubricate the respective parts listed once every 1000 hours or once a year under normal conditions of use.
Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

Lubrication point		Oil or Grease
Rotary section	Metal and metal	Pan motor oil (10W-40)
	Mold and metal	Sonic slider oil (# 1600)
Sliding section	Metal and metal	Hitasol (MO-138)
	Mold and mold Mold and metal	White grease (FL-LUBE-A)
Spring resonance prevention		Floil (GB-TS-1)

GRAISSAGE

Graissez une ou deux gouttes d'huile au point rotatif ou graissez le point de glissage.
Graissez les parties respectives listées une fois toutes les 1000 heures sous conditions normales d'emploi.
Evitez de les graisser trop excessivement ou la rotation pouvrait devenir irrégulière à cause de taches d'huile.

Point de graissage		Huile ou graisse
Section rotative	Métal et métal	Bac d'huile à moteurs (10W-40)
	Moule et métal	Huile de glissière sonique (# 1600)
Métal et métal	Métal et métal	Mitasol (MO -138)
	Moule et moule Moule et métal	Graisse blanche (FL-LUBE-A)
Prévention de résonance par saut		Fioll (GB-TS-1)

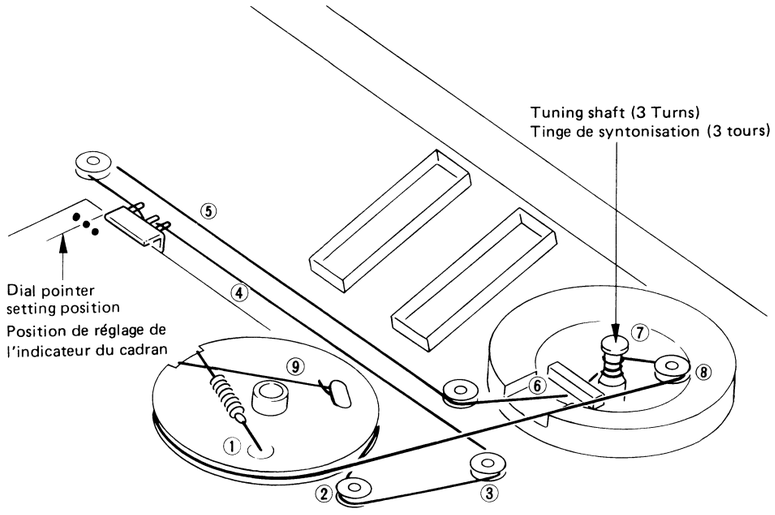
DIAL CORD STRINGING · ENFILAGE DU CABLE DE CADRAN

Stringing method

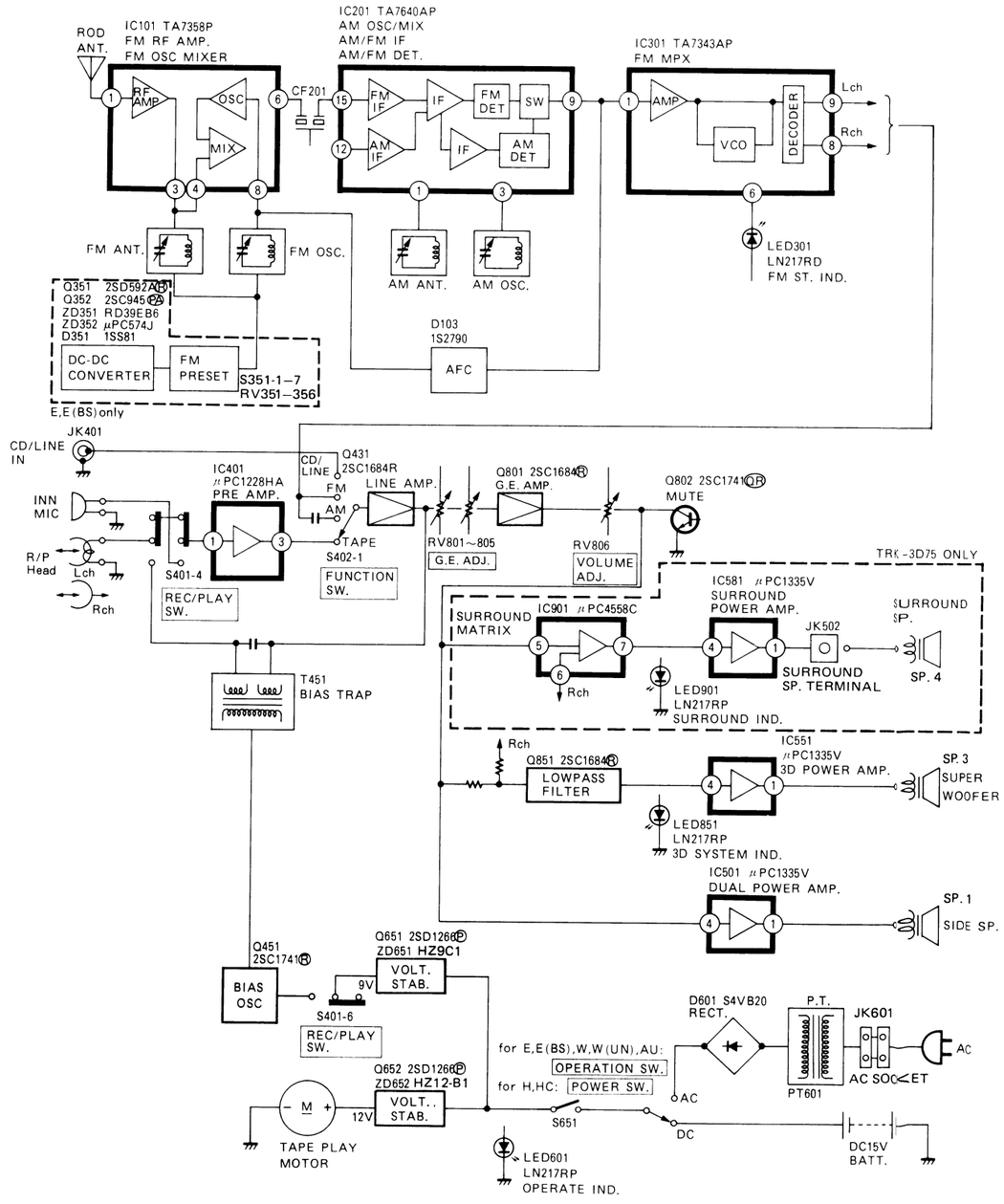
1. Turn the pulley fully clockwise.
2. String the dial cord in the direction of the arrow (Nos. 1-9).
3. Set the dial pointer to settting position.

Méthode d'enfilage

1. Tournez à fond la poulie dans le sens des aiguilles d'une montre.
2. Enroulez le câble de cadran dans le sens de la flèche (no. 1, 9).
3. Placez l'indicateur du cadran en position de réglage.

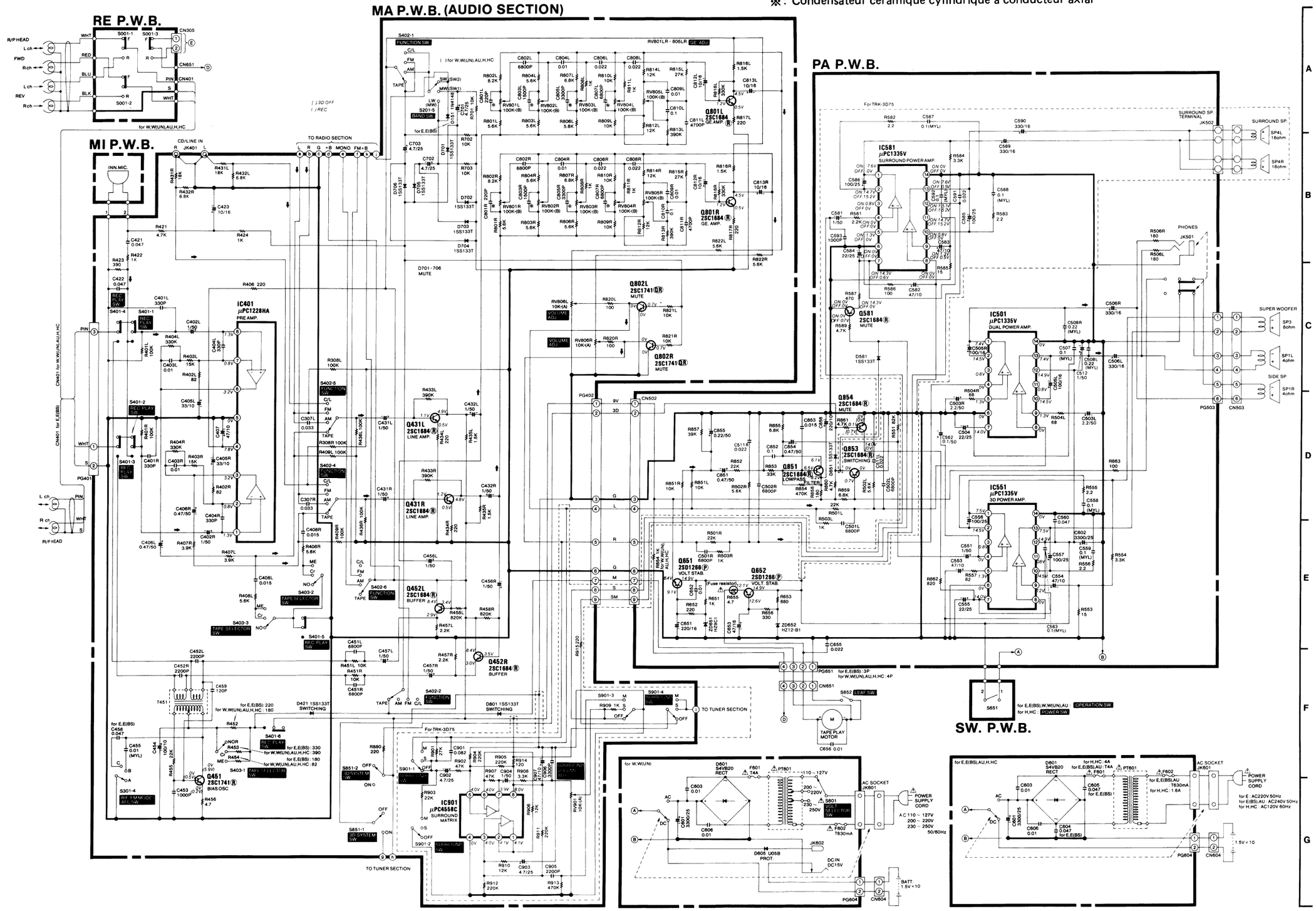


BROCK DIAGRAM·SCHEMA



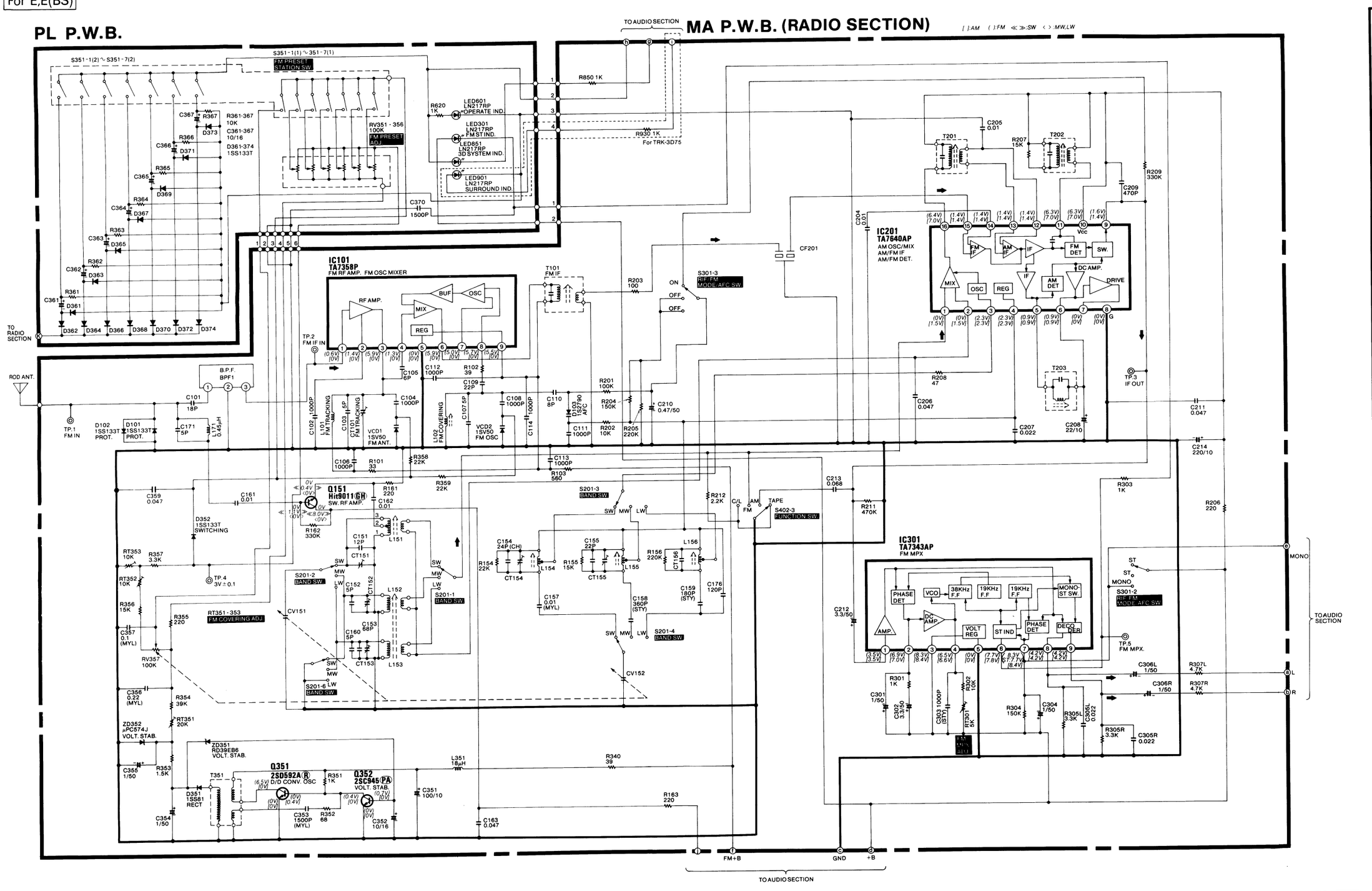
CIRCUIT DIAGRAM·DIAGRAMME DES CIRCUITS

※: Axial lead cylindrical ceramic capacitor
※: Condensateur céramique cylindrique à conducteur axial



PRINTED WIRING BOARD·PLAN DE BASE

For E,E(BS)



CIRCUIT DIAGRAM·DIAGRAMME DES CIRCUITS

For W,W(UN),AU,H,HC

PL P.W.B.

OPERATE/ DIRECTION IND.
PG305
LED602(R) LN217RP
LED601(F) LN217RP
LED301 LN217RP FM ST IND.
LED851 LN217RP 3D SYSTEM IND.
LED901 LN217RP SURROUND IND.
R850 1K
R930 1K For TRK-3D75
TO AUDIO SECTION

( ):FM
[ ]:AM

MA P.W.B. (RADIO SECTION)

ROD ANT.
TP.1 FM IN
B.P.F BPF1
TP.2 FM IF IN
C101 18P
D102 1SS133T PROT.
D101 1SS133T PROT.
C171 5P
L171 0.45μH
C102 1000P
L101 FM TRACKING
C103 20P(CH) FM TRACKING
CT101
CV101
C106 1000P
R101 33
C162 0.01
L151
S201-2 BAND SW.
S201-1 BAND SW.
S201-6 BAND SW.
CV151
L152
CT152
C153 3P
L153
R157 150
C113 1000P
R103 560
S201-3 BAND SW.
C154 18P (CH)
CT154
L154
R155 15K
CT155 12P
L155
R156 15K
C166 18P
CT156
L156
C157 0.01(MYL)
C158 1500P(STY)
C159 360P (STY)
S201-4 BAND SW.
CV152

IC101 TA7358P FM RF AMP. FM OSC MIXER
RF AMP. BUF OSC MIX REG
(0.8V) [0V] (1.5V) [0V] (5.5V) [0V] (1.5V) [0V] (0V) [0V] (5.5V) [0V] (4.7V) [0V] (5.5V) [0V] (5.5V) [0V]
C105 6P
C112 1000P
C109 15P
C110 10P
R201 100K
R202 10K
R205 220K
R204 150K
C210 0.47/50
C111 1000P
D103 1S2780 AFC
R102 2.2K
L102 FM COVERING
C107 22P(CH)
CT102
CV102 FM COVERING

T101 FM IF
R203 100
ON OFF OFF
S301-3 RIF/FM MODE /AFC SW.
CF201

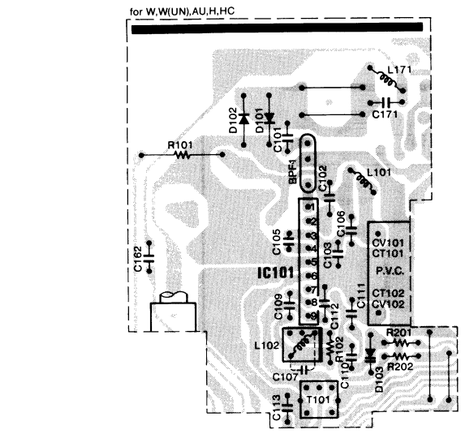
IC201 TA7640AP AM OSC/MIX AM/FM IF AM/FM DET.
FM IF AM IF IF FM DET SW. MIX OSC REG IF AM DET DC AMP. DRIVE Vcc
(6.3V) [6.9V] (1.4V) [1.4V] (1.4V) [1.4V] (1.4V) [1.4V] (1.4V) [1.4V] (6.3V) [6.9V] (6.3V) [6.9V] (1.5V) [1.4V]
(0V) [1.5V] (0V) [1.5V] (2.3V) [2.3V] (2.3V) [2.3V] (0.9V) [0.9V] (0.9V) [0.9V] (0V) [0V] (0V) [0V]
T201
T202
C205 0.01
R207 15K
R209 330K
C209 470P
C204 0.01
R208 47
C206 0.047
T203
C208 22/10
C207 0.022
TP.3 IF OUT
C211 0.047
C214 220/10
R206 220
R303 1K
C213 0.068
R211 470K
R212 2.2K
C/L
TAPE
FM AM
S402-3 FUNCTION SW.

IC301 TA7343AP FM MPX
PHASE DET VCO 38KHz F.F 19KHz F.F 19KHz F.F MONO-ST SW. AMP. DC AMP. VOLT REG ST IND PHASE DET DECO DER
(3.4V) [3.4V] (7.0V) [7.0V] (8.4V) [8.4V] (6.6V) [6.6V] (0V) [0V] (7.9V) [7.9V] (8.4V) [7.8V] [8.4V] (4.0V) [4.0V] (4.0V) [4.0V]
C212 3.3/50
C301 1/50
R301 1K
C302 3.3/50
C303 1000P (STY)
R302 10K
RT301 5K FM MPX ADJ.
R304 150K
C304 1/50
R305L 3.3K
C305L 0.022
R305R 3.3K
C305R 0.022
C306L 1/50
C306R 1/50
R307L 4.7K
R307R 4.7K
ST ST MONO S301-2 RIF/FM MODE /AFC SW.
TP.5 FM MPX.
MONO
L
R
TO AUDIO SECTION

FM+B GND +B
TO AUDIO SECTION

PRINTED WIRING BOARD·PLAN DE BASE

※: Axial lead cylindrical ceramic capacitor
※: Condensateur céramique cylindrique à conducteur axial



for W,W(UN) AU,H,HC

IC101	FM	AM
1	0.8V	0V
2	1.5V	0V
3	5.5V	0V
4	1.5V	0V
5	0V	0V
6	5.5V	0V
7	4.7V	0V
8	5.5V	0V
9	5.5V	0V

for E,E(BS)

IC101	FM	AM
1	0.6V	0V
2	1.4V	0V
3	5.9V	0V
4	1.3V	0V
5	0V	0V
6	5.9V	0V
7	5.0V	0V
8	5.7V	0V
9	5.5V	0V

for W,W(UN),AU,H,HC

IC201	FM	AM
1	0V	1.5V
2	0V	1.5V
3	2.3V	2.3V
4	2.3V	2.3V
5	0.9V	0.9V
6	0.9V	0.9V
7	0V	0V
8	0V	0V
9	1.5V	1.4V
10	6.3V	6.9V
11	6.3V	6.9V
12	1.4V	1.4V
13	1.4V	1.4V
14	1.4V	1.4V
15	1.4V	1.4V
16	6.3V	6.9V

for E,E(BS)

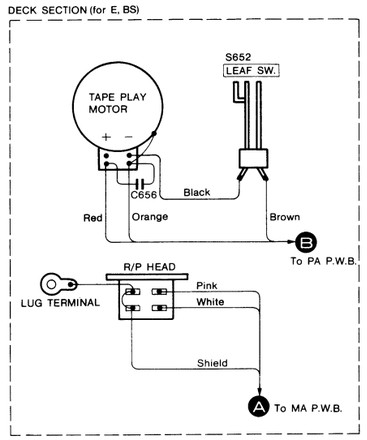
IC201	FM	AM
1	0V	1.5V
2	0V	1.5V
3	2.3V	2.3V
4	2.3V	2.3V
5	0.9V	0.9V
6	0.9V	0.9V
7	0V	0V
8	0V	0V
9	1.6V	1.4V
10	6.3V	7.0V
11	6.3V	7.0V
12	1.4V	1.4V
13	1.4V	1.4V
14	1.4V	1.4V
15	1.4V	1.4V
16	6.4V	7.0V

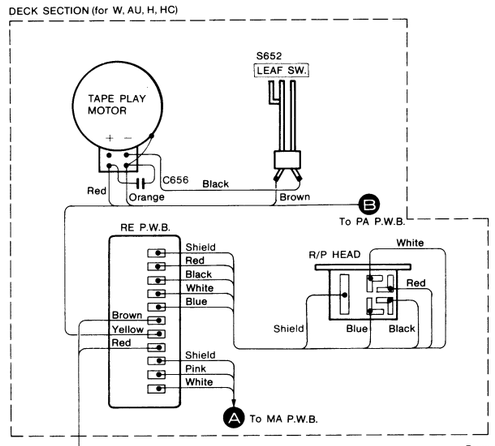
for W,W(UN),AU,H,HC

IC301	FM	AM
1	3.4V	3.4V
2	7.0V	7.0V
3	8.4V	8.4V
4	6.6V	6.6V
5	0V	0V
6	7.9V	7.9V
7	8.4V (ST:7.8V)	8.4V
8	4.0V	4.0V
9	4.0V	4.0V

for E,E(BS)

IC301	FM	AM
1	3.5V	3.5V
2	6.9V	7.0V
3	8.3V	8.4V
4	6.5V	6.6V
5	0V	0V
6	7.7V	7.8V
7	8.3V (ST:7.7V)	8.4V
8	4.2V	4.2V
9	4.2V	4.2V





IC401	
1	1.3V
2	0.8V
3	3.2V
4	7.8V
5	0V
6	3.2V
7	0.8V
8	1.3V

IC901	
1	4.1V
2	4.1V
3	4.0V
4	0V
5	4.0V
6	4.0V
7	3.9V
8	8.0V

Q151		
E	0V (0.4V)	<0V>
C	0V (8.0V)	<0V>
B	0V (1.1V)	<0V>

( ):SW.
< > :MW,LW

Q351	FM	AM
E	0V	0V
C	6.5V	0V
B	0V	0.4V

Q352	FM	AM
E	0V	0V
C	0.4V	0V
B	0.7V	0V

Q431L	
E	0.5V
C	4.9V
B	1.1V

Q431R	
E	0.5V
C	4.8V
B	1.2V

Q451	FM	AM
E	0V	(0.2V)
C	0V	(5.9V)
B	0V	(0.5V)

[ ]:REC

Q452L	
E	2.9V
C	8.4V
B	3.4V

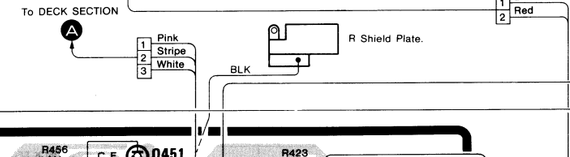
Q452R	
E	3.0V
C	8.4V
B	3.5V

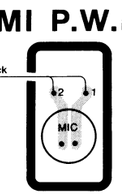
Q801L	
E	0.5V
C	4.5V
B	1.2V

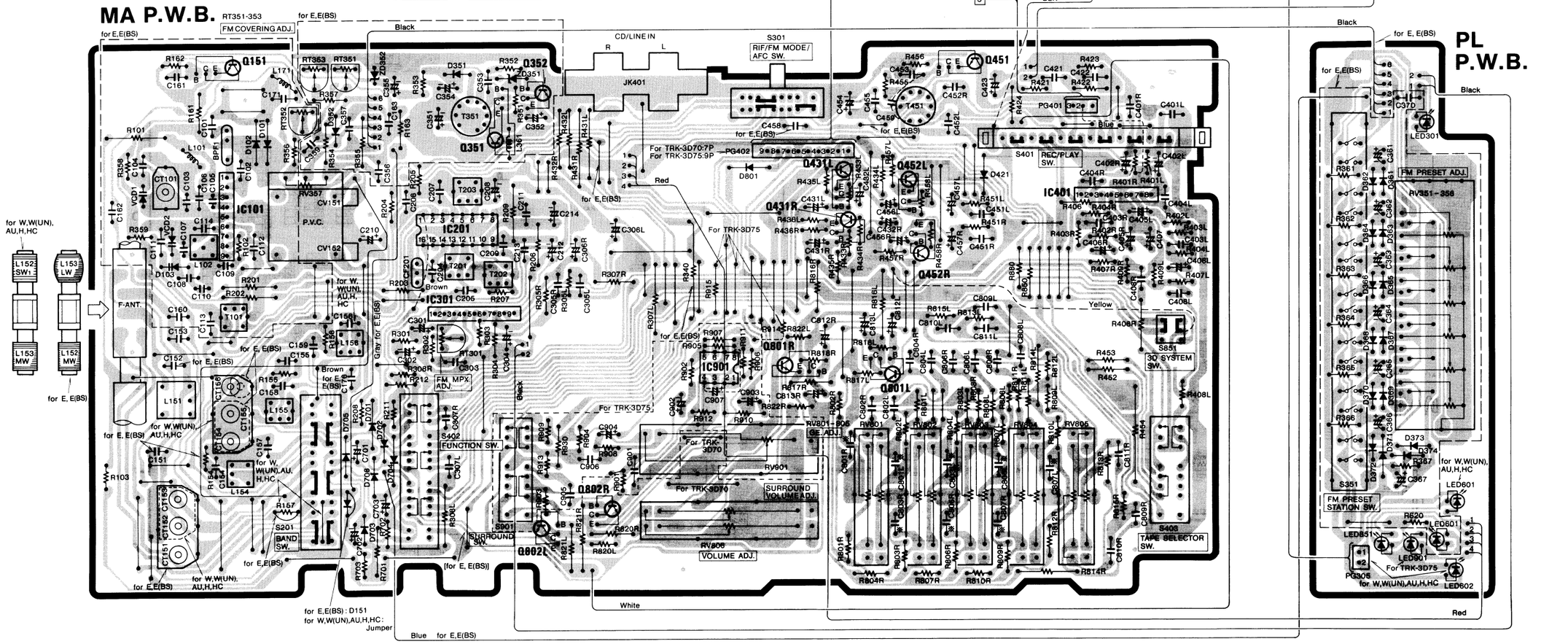
Q801R	
E	0.5V
C	4.5V
B	1.2V

Q802L	
E	0V
C	0V
B	0.7V

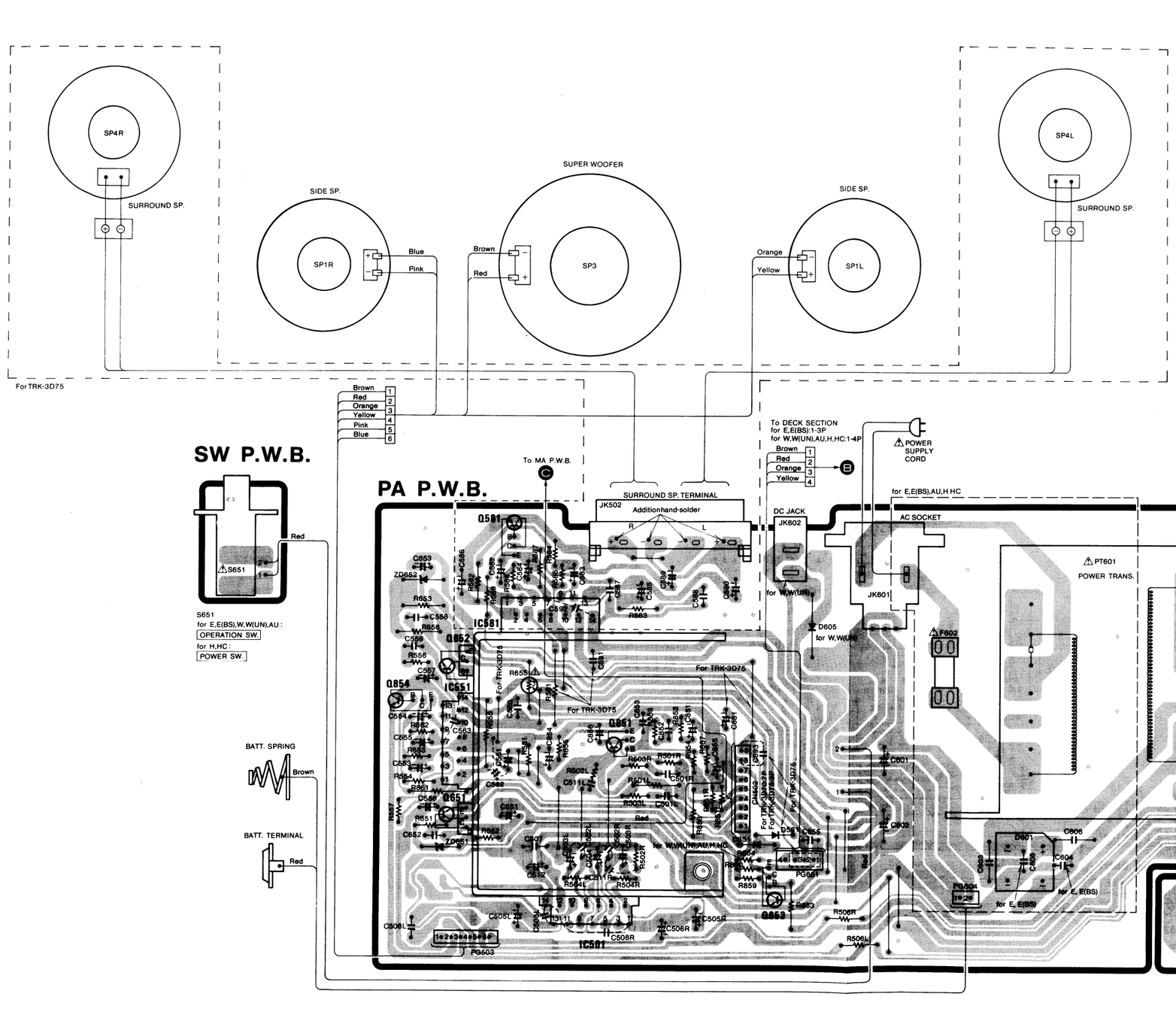
Q802R	
E	0V
C	0V
B	0.7V



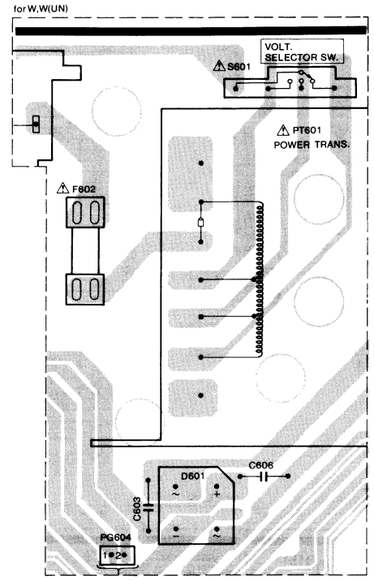




PRINTED WIRING BOARD·PLAN DE BASE



for W,W(UN)



IC501	
1	7.4V
2	14.5V
3	0.8V
4	0V
5	1.3V
6	0V
7	14.0V
8	0V
9	1.3V
10	14.5V
11	0.8V
12	14.9V
13	7.4V
14	0V

IC551	
1	7.5V
2	14.5V
3	0.8V
4	0V
5	1.3V
6	0V
7	14.0V
8	0V
9	1.2V
10	14.5V
11	0.8V
12	14.9V
13	7.5V
14	0V

IC581		
	ON	OFF
1	7.6V	0V
2	14.7V	15.2V
3	0.8V	0V
4	0V	0V
5	1.3V	0V
6	0V	0V
7	14.3V	0.6V
8	0V	0V
9	1.3V	0.5V
10	14.7V	15.2V
11	0.8V	0V
12	15.1V	15.2V
13	7.6V	0.5V
14	0V	0V

SURROUND ON/OFF

Q581		
	ON	OFF
E	0V	0V
C	14.3V	0V
B	0V	0.7V

SURROUND ON/OFF

Q651	
E	8.4V
C	14.9V
B	9.1V

Q852	
E	12.1V
C	14.9V
B	12.6V

Q851	
E	8.1V
C	8.2V
B	6.5V

Q853	
E	0V
C	0V
B	0.7V

Q854	
E	0V (0V)
C	14.0V (0V)
B	0.1V(0.7V)

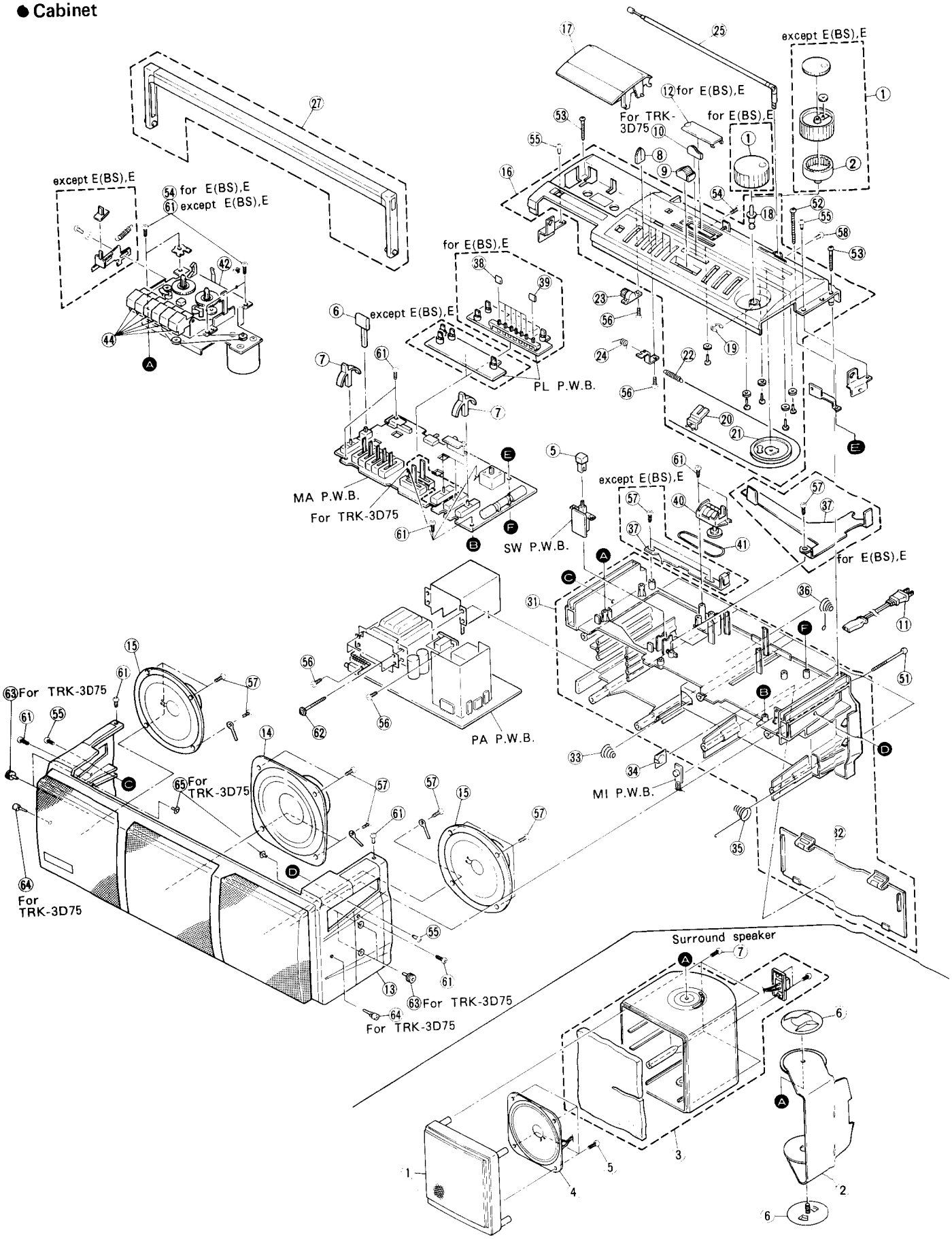
( ):3D OFF

A B C D E F

1 2 3 4 5 6 7

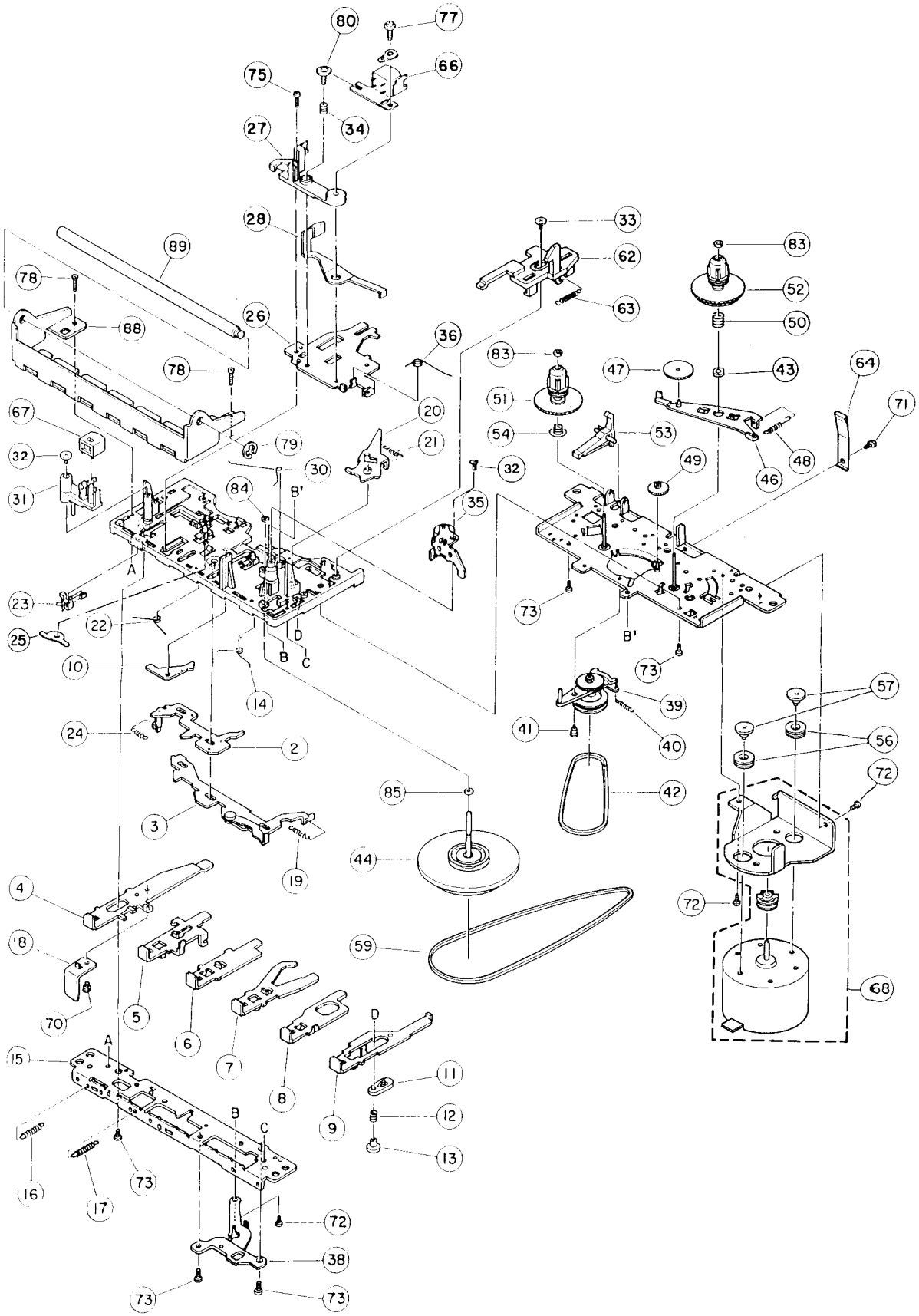
EXPLODED VIEW (Nos. are reference Nos. of parts list)

● Cabinet



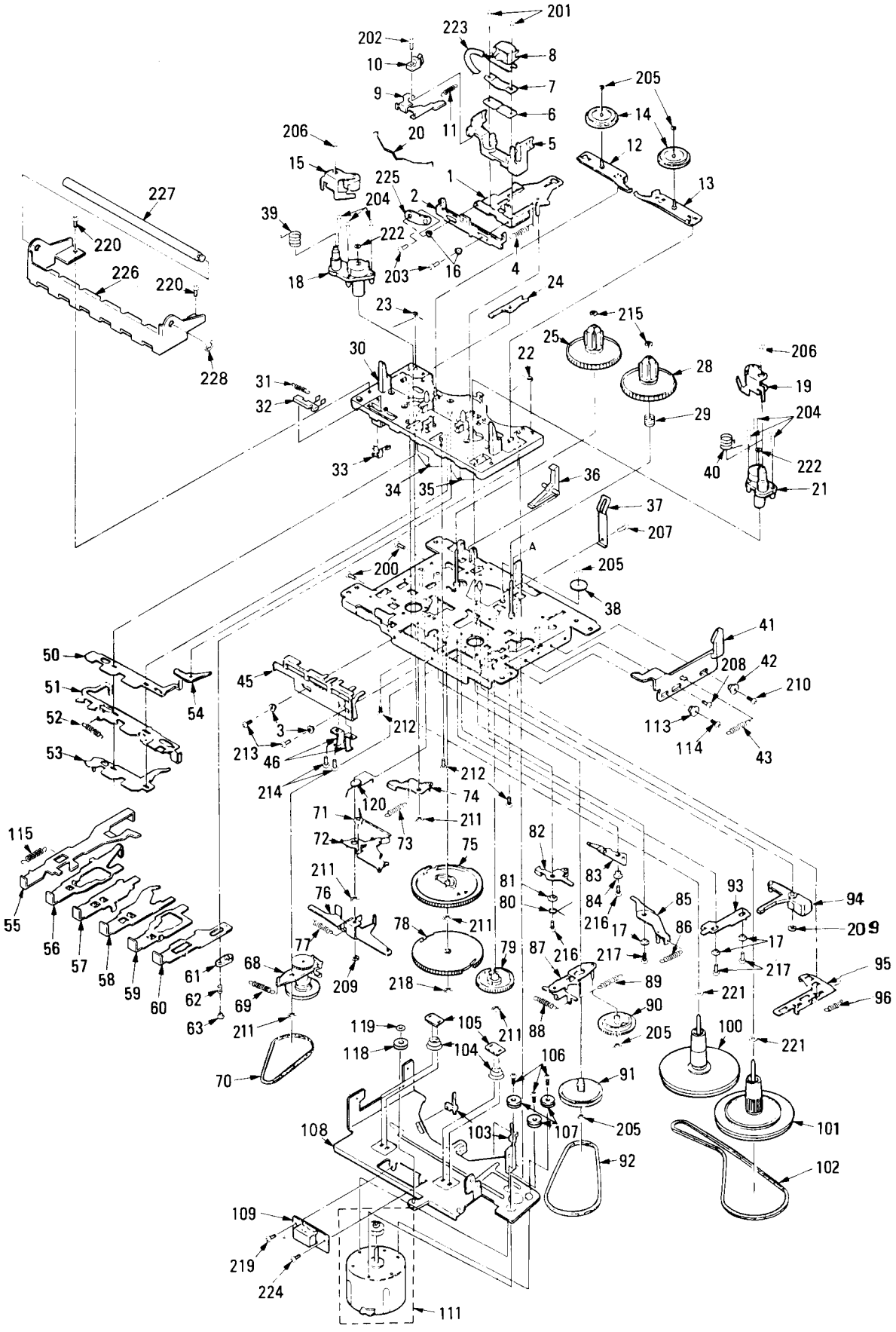
For E, E(BS)

● Cassette chassis (TN-21H-982)



For W, W(UN), AU, H, HC,

● Cassette chassis (TN-222F-140)



REPLACEMENT PARTS LIST·LISTE DES PIECES DES RECHANGE

CD.....Ceramic discal
CC..... Cylindrical ceramic
EL..... Electrolytic
MF..... Mylar, film
ST..... Styrol
CF..... Carbon film
ME..... Metal
MO..... Metal, oxide
CO..... Composition
FR..... Fuse resistor
○ ... TRK-3D70 only
★ ... TRK-3D75 only

SYMBOL NO.	PART NO.	DESCRIPTION
		CAPACITORS
C101	0208666	CD 18pF ±5% 50V
C102	0209731	CD 1000pF ±10% 50V
C103	0248475	CD 5pF ±0.5pF 50V [for E(BS), E]
C103	0246447	CD 20pF ±5% 50V [except E(BS), E]
C104	0209731	CD 1000pF ±10% 50V [for E(BS), E]
C105	0208646	CD 6pF ±0.5pF 50V
C106	0209731	CD 1000pF ±10% 50V [for E(BS), E]
C106	0244101	CD 1000pF ±10% 50V [except E(BS), E]
C107	0248475	CD 5pF ±0.5pF 50V [for E(BS), E]
C107	0246448	CD 22pF ±5% 50V [except E(BS), E]
C108	0209731	CD 1000pF ±10% 50V [for E(BS), E]
C109	0248498	CD 22pF ±5% 50V [for E(BS), E]
C109	0248034	CD 15pF ±5% 50V [except E(BS), E]
C110	0248478	CD 8pF ±0.5pF 50V [for E(BS), E]
C110	0248020	CD 10pF ±0.5pF 50V [except E(BS), E]
C111	0209731	CD 1000pF ±10% 50V
C112	0209731	CD 1000pF ±10% 50V [for E(BS), E]
C112	0244101	CD 1000pF ±10% 50V [except E(BS), E]
C113	0209731	CD 1000pF ±10% 50V
C114	0209731	CD 1000pF ±10% 50V [for E(BS), E]
C151	0208662	CD 12pF ±0.5pF 50V [for E(BS), E]
C152	0208635	CD 5pF ±0.25pF 50V [for E(BS), E]
C153	0208680	CD 68pF ±5% 50V [for E(BS), E]
C153	0208633	CD 3pF ±0.5pF 50V [except E(BS), E]
C154	0246449	CD 24pF ±5% 50V [for E(BS), E]
C154	0208666	CD 18pF ±5% 50V [except E(BS), E]
C155	0208668	CD 22pF ±5% 50V [for E(BS), E]
C155	0208662	CD 12pF ±0.5pF 50V [except E(BS), E]
C156	0208666	CD 18pF ±5% 50V [except E(BS), E]
C157	0275011	MF 0.01μF ±10% 50V
C158	1221393	ST 360pF ±5% 50V [for E(BS), E]
C158	1221396	ST 1500pF ±5% 50V [except E(BS), E]
C159	1221391	ST 180pF ±5% 50V [for E(BS), E]
C159	1221393	ST 360pF ±5% 50V [except E(BS), E]
C160	0208635	CD 5pF ±0.25pF 50V [for E(BS), E]
C161	0244171	CD 0.01μF +80 -20 % 50V [for E(BS), E]
C162	0244171	CD 0.01μF +80 -20 % 50V
C163	0240220	CD 0.047μF ±10% 25V [for E(BS), E]
C171	0208635	CD 5pF ±0.25pF 50V
C176	0208686	CD 120pF ±5% 50V [for E(BS), E]
C204	0244171	CD 0.01μF +80 -20 % 50V
C205	0244171	CD 0.01μF +80 -20 % 50V
C206	0209175	CD 0.047μF +80 -20 % 50V
C207	0244173	CD 0.022μF +80 -20 % 50V
C208	0252322	EL 22μF 10V
C209	0209723	CD 470pF ±10% 50V
C210	0252805	EL 0.47μF 50V
C211	0209175	CD 0.047μF 50V
C212	0252813	EL 3.3μF 50V
C213	0249766	CD 0.068μF ±10% 25V
C214	0252332	EL 220μF 10V
C301	0252811	EL 1μF 50V
C302	0252813	EL 3.3μF 50V
C303	1221395	ST 1000pF ±5% 50V
C304	0252811	EL 1μF 50V
C305L,R	0240216	CD 0.022μF ±10% 25V
C306L,R	0252811	EL 1μF 50V
C307L,R	0240218	CD 0.033μF ±10% 25V
C351	0252331	EL 100μF 10V [for E(BS), E]
C352	0252521	EL 10μF 16V [for E(BS), E]
C353	0274012	MF 1500pF ±10% 50V [for E(BS), E]
C354	0252811	EL 1μF 50V [for E(BS), E]
C355	0252811	EL 1μF 50V [for E(BS), E]
C356	0276013	MF 0.22μF ±10% 50V [for E(BS), E]
C357	0276011	MF 0.1μF ±10% 50V [for E(BS), E]
C359	0244175	CD 0.047μF +80 -20% 50V [for E(BS), E]
C361	0252521	EL 10μF 16V [for E(BS), E]
C362	0252521	EL 10μF 16V [for E(BS), E]
C363	0252521	EL 10μF 16V [for E(BS), E]
C364	0252521	EL 10μF 16V [for E(BS), E]
C365	0252521	EL 10μF 16V [for E(BS), E]
C366	0252521	EL 10μF 16V [for B(BS), E]
C367	0252521	EL 10μF 16V [for B(BS), E]
C370	0244103	CD 1500pF ±10% 50V [for E(BS), E]
C401L,R	0209721	CD 330pF ±10% 50V
C402L,R	0252811	EL 1μF 50V
C403L,R	0240212	CD 0.01μF ±10% 25V
C404L,R	0209721	CD 330pF ±10% 50V
C405L,R	0252323	EL 33μF 10V
C406L,R	0252805	EL 0.47μF 50V
C407	0252325	EL 47μF 10V
C408L,R	0240214	CD 0.015μF ±10% 25V
C421	0240220	CD 0.047μF ±10% 25V
C422	0240220	CD 0.047μF ±10% 25V
C423	0252521	EL 10μF 16V
C431L,R	0252811	EL 1μF 50V
C432L,R	0252811	EL 1μF 50V
C451L,R	0240210	CD 6800pF ±10% 25V
C452L,R	0240204	CD 2200pF ±10% 25V
C453	0240200	CD 1000pF ±10% 25V
C454	0252331	EL 100μF 10V
C455	0275011	MF 0.01μF ±10% 50V
C456L,R	0252811	EL 1μF 50V
C457L,R	0252811	EL 1μF 50V
C458	0275015	MF 0.047μF±10% 50V [for E(BS), E]
C459	0248686	CD 120pF ±5% 50V
C501L,R	0209736	CD 6800pF ±10%
C502L,R	0244111	CD 6800pF ±10% 50V
C503L,R	0252812	EL 2.2μF 50V
C504	0252622	EL 22μF 25V
C505L,R	0252531	EL 100μF 16V
C506L,R	0252533	EL 330μF 16V
C507	0276011	MF 0.1μF ±10% 50V
C508L,R	0276013	MF 0.22μF ±10% 50V
C511L,R	0240216	CD 0.022μF ±10% 25V
C512	0252811	EL 1μF 50V
C551	0252811	EL 1μF 50V
C553	0252325	EL 47μF 10V
C554	0252325	EL 47μF 10V
C555	0252622	EL 22μF 25V
C556	0252631	EL 100μF 25V
C557	0252631	EL 100μF 25V
C558	0276011	MF 0.1μF ±10% 50V
C559	0276011	MF 0.1μF ±10% 50V
C560	0244175	CD 0.047μF +80 -20 % 25V
C562	0252801	EL 0.1μF 50V
C563	0276011	MF 0.1μF ±10% 50V
★C581	0252811	EL 1μF 50V
★C582	0252325	EL 47μF 10V
★C583	0252325	EL 47μF 10V
★C584	0252622	EL 22μF 25V
★C585	0252631	EL 100μF 25V
★C586	0252631	EL 100μF 25V
★C587	0276011	MF 0.1μF ±10% 50V
★C588	0276011	MF 0.1μF ±10% 50V
★C589	0252533	EL 330μF 16V
★C590	0252533	EL 330μF 16V
★C591	0240216	CD 0.022μF ±10% 25V

SYMBOL NO.	PART NO.	DESCRIPTION
★C592	0276011	MF 0.1μF ±10% 50V
★C593	0244101	CD 1000pF ±10% 50V
C601	1256281	EL 3300μF 25V
C602	1256281	EL 3300μF 25V
C603	0245408	CD 0.01μF ±20% 500V
C604	0209175	CD 0.047μF +80% −20% 50V [for E(BS), E]
C605	0209175	CD 0.047μF +80% −20% 50V [for E(BS), E]
C606	0245408	CD 0.01μF ±20% 500V
C651	0252532	EL 220μF 16V
C652	0249761	CD 0.01μF ±10% 25V
C653	0252525	EL 47μF 16V
C655	0244173	CD 0.022μF +80% −20% 50V
C701	0252615	EL 4.7μF 25V
C702	0252615	EL 4.7μF 25V
C703	0252615	EL 4.7μF 25V
C801L,R	0240037	CC 220pF ±10% 50V
C802L,R	0240210	CD 6800pF ±10% 25V
C803L,R	0240051	CC 1500pF ±20% 16V
C804L,R	0240212	CD 0.01μF ±10% 25V
C805L,R	0240055	CC 3300pF ±20% 16V
C806L,R	0240216	CD 0.022μF ±10% 25V
C807L,R	0240059	CC 6800pF ±30% 16V
C808L,R	0240216	CD 0.022μF ±10% 25V
C809L,R	0240212	CD 0.01μF ±10% 25V
C810L,R	0240224	CD 0.1μF ±10% 25V
C811L,R	0240208	CD 4700pF ±10% 25V
C812L,R	0252521	EL 10μF 16V
C813L,R	0252521	EL 10μF 16V
C851	0252805	EL 0.47μF 50V
C852	0240224	CD 0.1μF ±10% 25V
C853	0240214	CD 0.015μF ±10% 25V
C854	0252805	EL 0.47μF 50V
C855	0252802	EL 0.22μF 50V
C856	0252332	EL 220μF 10V
★C901	0240223	CD 0.082μF ±10% 25V
★C902	0252615	EL 4.7μF 25V
★C903	0252615	EL 4.7μF 25V
★C904	0252811	EL 1μF 50V
★C905	0240204	CD 2200pF ±10% 25V
★C906	0240206	CD 3300pF ±10% 25V
★C907	0252325	EL 47μF 10V

RESISTORS

R101	0113579	CF 33Ω ±5% SRD1/6P
R102	0113581	CF 39Ω ±5% SRD1/6P [for E(BS), E]
R102	0113623	CF 2.2kΩ ±5% SRD1/6P [except E(BS), E]
R103	0113609	CF 560Ω ±5% SRD1/6P
R154	0113647	CF 22kΩ ±5% SRD1/6P [for E(BS), E]
R155	0113643	CF 15kΩ ±5% SRD1/6P
R156	0113671	CF 220kΩ ±5% SRD1/6P [for E(BS), E]
R156	0113643	CF 15kΩ ±5% SRD1/6P [except E(BS), E]
R157	0113595	CF 150Ω ±5% SRD1/6P [except E(BS), E]
R161	0113599	CF 220Ω ±5% SRD1/6P [for E(BS), E]
R162	0113675	CF 330kΩ ±5% SRD1/6P [for E(BS), E]
R163	0113599	CF 220Ω ±5% SRD1/6P [for E(BS), E]
R201	0113663	CF 100kΩ ±5% SRD1/6P
R202	0113639	CF 10kΩ ±5% SRD1/6P
R203	0113591	CF 100Ω ±5% SRD1/6P
R204	0113667	CF 150kΩ ±5% SRD1/6P
R205	0113671	CF 220kΩ ±5% SRD1/6P
R206	0113599	CF 220Ω ±5% SRD1/6P
R207	0113643	CF 15kΩ ±5% SRD1/6P
R208	0113583	CF 47Ω ±5% SRD1/6P
R209	0113675	CF 330kΩ ±5% SRD1/6P
R211	0113679	CF 470kΩ ±5% SRD1/6P
R212	0113623	CF 2.2kΩ ±5% SRD1/6P
R301	0113615	CF 1kΩ ±5% SRD1/6P
R302	0113639	CF 10kΩ ±5% SRD1/6P
R303	0113615	CF 1kΩ ±5% SRD1/6P
R304	0113667	CF 150kΩ ±5% SRD1/6P
R305L,R	0113627	CF 3.3kΩ ±5% SRD1/6P
R307L,R	0113631	CF 4.7kΩ ±5% SRD1/6P
R308L,R	0113663	CF 100kΩ ±5% SRD1/6P
R340	1119508	MO 39Ω ±10% RS2B [for E(BS), E]
R351	0113615	CF 1kΩ ±5% SRD1/6P [for E(BS), E]
R352	0113587	CF 68Ω ±5% SRD1/6P [for E(BS), E]
R353	0113619	CF 1.5kΩ ±5% SRD1/6P [for E(BS), E]
R354	0113653	CF 39kΩ ±5% SRD1/6P [for E(BS), E]
R355	0113599	CF 220Ω ±5% SRD1/6P [for E(BS), E]
R356	0113643	CF 15kΩ ±5% SRD1/6P [for E(BS), E]
R357	0113627	CF 3.3kΩ ±5% SRD1/6P [for E(BS), E]
R358	0113647	CF 22kΩ ±5% SRD1/6P [for E(BS), E]
R359	0113647	CF 22kΩ ±5% SRD1/6P [for E(BS), E]
R361	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R362	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R363	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R364	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R365	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R366	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS), E]
R367	0113639	CF 10kΩ ±5% SRD1/6P [for E(BS, E]
R401L,R	0113663	CF 100kΩ ±5% SRD1/6P
R402L,R	0113589	CF 82Ω ±5% SRD1/6P
R403L,R	0113643	CF 15kΩ ±5% SRD1/6P
R404L,R	0113675	CF 330kΩ ±5% SRD1/6P
R406	0113599	CF 220Ω ±5% SRD1/6P
R407L,R	0113629	CF 3.9kΩ ±5% SRD1/6P
R408L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R409L,R	0113663	CF 100kΩ ±5% SRD1/6P
R421	0113631	CF 4.7kΩ ±5% SRD1/6P
R422	0113615	CF 1kΩ ±5% SRD1/6P
R423	0113605	CF 390Ω ±5% SRD1/6P
R424	0113615	CF 1kΩ ±5% SRD1/6P
R431L,R	0113645	CF 18kΩ ±5% SRD1/6P
R432L,R	0113635	CF 6.8kΩ ±5% SRD1/6P
R433L,R	0113677	CF 390kΩ ±5% SRD1/6P
R434L,R	0113599	CF 220Ω ±5% SRD1/6P
R435L,R	0113619	CF 1.5kΩ ±5% SRD1/6P
R436L,R	0113663	CF 100kΩ ±5% SRD1/6P
R451L,R	0113639	CF 10kΩ ±5% SRD1/6P
R452	0129567	CF 180Ω ±5% SRD1/4P [except E(BS), E]
R452	0113599	CF220Ω ±5% SRD1/6P [for E(BS), E]
R453	0113603	CF 330Ω ±5% SRD1/6P [for E(BS), E]
R453	0113605	CF 390Ω ±5% SRD1/6P [except E(BS), E]
R454	0129567	CF 180Ω ±5% SRD1/4P [for E(BS), E]
R454	1119410	MO 82Ω ±10% RS1B [except E(BS), E]
R455	0113647	CF 22kΩ ±5% SRD1/6P
R456	0113559	CF 4.7Ω ±5% SRD1/6P
R457L,R	0113623	CF 2.2kΩ ±5% SRD1/6P
R458L,R	0113685	CF 820kΩ ±5% SRD1/6P
R501L,R	0113647	CF 22kΩ ±5% SRD1/6P
R502L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R503L,R	0113615	CF 1kΩ ±5% SRD1/6P
R504L,R	0113587	CF 68Ω ±5% SRD1/6P
R506L,R	0113290	CF 180Ω ±5% SRD1/2P
R551	0113661	CF 82kΩ ±5% SRD1/6P
R553	0113571	CF 15Ω ±5% SRD1/6P
R554	0113627	CF 3.3kΩ ±5% SRD1/6P
R555	0113551	CF 2.2Ω ±5% SRD1/6P
R556	0113551	CF 2.2Ω ±5% SRD1/6P
R557	0113589	CF 82Ω ±5% SRD1/6P
★R581	0113623	CF 2.2kΩ ±5% SRD1/6P
★R582	0113551	CF 2.2Ω ±5% SRD1/6P
★R583	0113551	CF 2.2Ω ±5% SRD1/6P
★R584	0113627	CF 3.3kΩ ±5% SRD1/6P
★R585	0113571	CF 15Ω ±5% SRD1/6P
★R586	0113591	CF 100Ω ±5% SRD1/6P
★R587	0113607	CF 470Ω ±5% SRD1/6P
★R589	0113631	CF 4.7kΩ ±5% SRD1/6P
R620	0113615	CF 1kΩ ±5% SRD1/6P [for E(BS), E]
R651	0129601	CF 1kΩ ±5% SRD1/4P
R652	0113599	CF 220Ω ±5% SRD1/6P
R653	0113297	CF 680Ω ±5% SRD1/2P
R654	0113615	CF 1kΩ ±5% SRD1/6P [except E(BS), E]
! R655	0118445	FR 4.7Ω ±5% RN1/4B
R656	0113603	CF 330Ω ±5% SRD1/6P
R701	0113639	CF 10kΩ ±5% SRD1/6P
R702	0113639	CF 10kΩ ±5% SRD1/6P
R703	0113639	CF 10kΩ ±5% SRD1/6P
R801L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R802L,R	0113637	CF 8.2kΩ ±5% SRD1/6P
R803L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R804L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R806L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R807L,R	0113635	CF 6.8kΩ ±5% SRD1/6P
R808L,R	0113615	CF 1kΩ ±5% SRD1/6P
R809L,R	0113639	CF 10kΩ ±5% SRD1/6P
R810L,R	0113639	CF 10kΩ ±5% SRD1/6P
R811L,R	0113615	CF 1kΩ ±5% SRD1/6P
R812L,R	0113641	CF 12kΩ ±5% SRD1/6P
R813L,R	0113677	CF 390kΩ ±5% SRD1/6P
R814L,R	0113641	CF 12kΩ ±5% SRD1/6P
R815L,R	0113649	CF 27kΩ ±5% SRD1/6P
R816L,R	0113619	CF 1.5kΩ ±5% SRD1/6P
R817L,R	0113599	CF 220Ω ±5% SRD1/6P
R818L,R	0113675	CF 330kΩ ±5% SRD1/6P

SYMBOL NO.	PART NO.	DESCRIPTION
R820L,R	0113591	CF 100Ω ±5% SRD1/6P
R821L,R	0113639	CF 10kΩ ±5% SRD1/6P
R822L,R	0113633	CF 5.6kΩ ±5% SRD1/6P
R850	0113615	CF 1kΩ ±5% SRD1/6P
R851L,R	0113639	CF 10kΩ ±5% SRD1/6P
R852	0113647	CF 22kΩ ±5% SRD1/6P
R853	0113651	CF 33kΩ ±5% SRD1/6P
R854	0113679	CF 470kΩ ±5% SRD1/6P
R855	0113635	CF 6.8kΩ ±5% SRD1/6P
R856	0113653	CF 39kΩ ±5% SRD1/6P
R858	0129567	CF 180Ω ±5% SRD1/4P
R859	0113635	CF 6.8kΩ ±5% SRD1/6P
R860	0113631	CF 4.7kΩ ±5% SRD1/6P
R861	0113631	CF 4.7kΩ ±5% SRD1/6P
R862	0113613	CF 820Ω ±5% SRD1/6P
R863	0113591	CF 100Ω ±5% SRD1/6P
R880	0113599	CF 220Ω ±5% SRD1/6P
★R901	0113649	CF 27kΩ ±5% SRD1/6P
★R902	0113655	CF 47kΩ ±5% SRD1/6P
★R903	0113647	CF 22kΩ ±5% SRD1/6P
★R904	0113671	CF 220kΩ ±5% SRD1/6P
★R905	0113671	CF 220kΩ ±5% SRD1/6P
★R906	0113641	CF 12kΩ ±5% SRD1/6P
★R907	0113655	CF 47kΩ ±5% SRD1/6P
★R908	0113627	CF 3.3kΩ ±5% SRD1/6P
★R909	0113615	CF 1kΩ ±5% SRD1/6P
★R910	0113641	CF 12kΩ ±5% SRD1/6P
★R911	0113671	CF 220kΩ ±5% SRD1/6P
★R912	0113671	CF 220kΩ ±5% SRD1/6P
★R913	0113679	CF 470kΩ ±5% SRD1/6P
★R914	0113593	CF 120Ω ±5% SRD1/6P
★R915	0113599	CF 220Ω ±5% SRD1/6P
★R930	0113615	CF 1kΩ ±5% SRD1/6P

ICs & TRANSISTORS

IC101	2398201	TA7358P
IC201	2389511	TA7640AP
IC301	2301041	TA7343AP
IC401	2387022	μPC1228HA
IC501	2300872	μPC1335V
IC551	2300872	μPC1335V
★IC581	2300872	μPC1335V
★IC901	2300831	μPC4558C
Q151	2319083	HIT9011 (GH) [for E(BS), E]
Q351	2318201	2SD592 A® [for E(BS), E]
Q352	2329453	2SC945 (PA) [for E(BS), E]
Q431L,R	2319101	2SC1684®
Q451	2329313	2SC1741®
Q452L,R	2319101	2SC1684®
★Q581	2319101	2SC1684®
Q651	2317803	2SD1266 P
Q652	2317803	2SD1266 P
Q801L,R	2319101	2SC1684®
Q802L,R	2329316	2SC1741 (QR)
Q851	2319101	2SC1684®
Q853	2319101	2SC1684®
Q854	2319101	2SC1684®

DIODES

D101	2397421	1SS133T
D102	2397421	1SS133T
D103	2338031	1S2790
D151	2398081	IN4148 [for E(BS), E]
D351	2337641	1SS81 [for E(BS), E]
D352	2397421	1SS133T [for E(BS), E]
D361	2397421	1SS133T [for E(BS), E]
D362	2397421	1SS133T [for E(BS), E]
D363	2397421	1SS133T [for E(BS), E]
D364	2397421	1SS133T [for E(BS), E]
D365	2397421	1SS133T [for E(BS), E]
D366	2397421	1SS133T [for E(BS), E]
D367	2397421	1SS133T [for E(BS), E]
D368	2397421	1SS133T [for E(BS), E]
D369	2397421	1SS133T [for E(BS), E]
D370	2397421	1SS133T [for E(BS), E]
D371	2397421	1SS133T [for E(BS), E]
D372	2397421	1SS133T [for E(BS), E]
D373	2397421	1SS133T [for E(BS), E]
D374	2397421	1SS133T [for E(BS), E]
D421	2397421	1SS133T
★D581	2397421	1SS133T
D601	2337461	S4VB20
D605	2339141	U05B [for W(UN), W]
D701	2397421	1SS133T
D702	2397421	1SS133T
D703	2397421	1SS133T
D704	2397421	1SS133T
D705	2397421	1SS133T
D706	2397421	1SS133T
D801	2397421	1SS133T
D851	2397421	1SS133T
ZD351	2338672	RD39EB6 [for E(BS), E]
ZD352	2338091	μPC574J [for E(BS), E]
ZD651	2337527	HZ9C1
ZD652	2337564	HZ12-B1
LED301	2397753	LN217RP
LED601	2397753	LN217RP
LED602	2397753	LN217RP [except E(BS), E]
LED851	2397753	LN217RP
★LED901	2397753	LN217RP
VCD1	2398371	1SV50 [for E(BS), E]
VCD2	2398371	1SV50 [for E(BS), E]

VARIABLE RESISTORS

RT301	0189331	5kΩ FM MPX
RT351	0189334	20kΩ PRESET COVERING [for E(BS), E]
RT352	0189332	10kΩ MANUAL COVERING [for E(BS), E]
RT353	0189332	10kΩ PRESET COVERING
		MANUAL COVERING [for E(BS), E]
RV351	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV352	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV353	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV354	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV355	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV356	0189351	100kΩ–(B) FM PRESET [for E(BS), E]
RV801	0189161	100kΩ–(B) GE.
RV802	0189161	100kΩ–(B) GE.
RV803	0189161	100kΩ–(B) GE.
RV804	0189161	100kΩ–(B) GE.
RV805	0189161	100kΩ–(B) GE.
RV806	0189322	10kΩ–(A) VOLUME
★RV901	0189321	10kΩ–(A) SURR. VOLUME

COIL & TRANSFORMERS

L101	2137683	FM RF coil
L102	2135253	FM OSC coil [for E(BS), E]
L102	2135274	FM OSC coil [except E(BS), E]
L151	2137662	SW ANT coil [for E(BS), E]
L151	2137821	SW antenna coil [except E(BS), E]
L152	2757994	Ferriteantenna [for E(BS), E]
L152	2757982	Ferriteantenna [except E(BS), E]
L153	2757994	Ferriteantenna [for E(BS), E]
L153	2757982	Ferriteantenna [except E(BS), E]
L154	2137671	SW OSC coil [for E(BS), E]
L154	2137672	SW OSC coil [except E(BS), E]
L155	2137631	MW OSC coil [for E(BS), E]
L155	2137633	SW OSC coil [except E(BS), E]
L156	2137642	LW OSC coil [for E(BS), E]
L156	2137631	MW OSC coil [except E (BS), E]
L171	2137684	Choke coil
L351	2227748	Choke coil [for E(BS) E]
T101	2154962	FM IF transformer
T201	2154952	AM IF transformer
T202	2154964	FM IF transformer
T203	2154951	AM IF transformer
T351	2267021	DC-DC conv. transformer [for E(BS), E]
T451	2137651	REC OSC transformer

MISCELLANEOUS

JK401	2678201	2P Pin jack
JK501	2678761	Stereo jack

SYMBOL NO.	PART NO.	DESCRIPTION
★JK502	2689551	Push terminal
JK601	2659271	2P socket [for E(BS), E]
JK601	2659272	2P socket [except E(BS), E]
JK602	2677931	DC jack [for W(UN), W]
BPF1	2137191	FM band pass filter
CV151	0282421	Capacitor variable [For E(BS), E]
CV152		
RV357		
CV101	0282441	Capacitor variable
CV102		[except E(BS), E]
CV151		
CV152		
CT101		
CT102		
CT101	0283113	Capacitor variable [for E(BS), E]
CT151	0283130	Capacitor semi variable [for E(BS), E]
CT152	0283557	Capacitor semi variable [for E(BS), E]
CT152	0283130	Capacitor semi variable [except E(BS), E]
CT153	0283130	Capacitor semi variable [for E(BS), E]
CT153	0283557	Capacitor semi variable [except E(BS), E]
CT154	0283557	Capacitor semi variable [for E(BS), E]
CT154	0283130	Capacitor semi variable [except E(BS), E]
CT155	0283557	Capacitor semi variable [for E(BS), E]
CT155	0283130	Capacitor Semi variable [except E(BS), E]
CT156	0282148	Capacitor semi variable [for E(BS), E]
CT156	0283130	Capacitor semi variable [except E(BS), E]
CF201	2135321	Ceramic filter

SYMBOL NO.	PART NO.	DESCRIPTION
⚠F601	2727725	Fuse (4A 250V) [except HC, H]
⚠F601	2727894	UL fuse 4A [for HC, H]
⚠F602	2728072	Fuse 630mA [except H, HC]
⚠F602	2727891	
S201	2629366	Lever switch BAND
S301	2628691	Slide switch /FM MODE/ AFC/RIF
S351	2639626	Push switch FM PRESET STATION [for E(BS), E]
S401	2628522	Slide switch REC/PLAY
S402	2628531	Lever switch FUNCTION
S403	2629365	Lever switch TAPE SELECTOR
⚠S601	2618472	Switch VOLT SELECTOR [for W(UN), W]
⚠S651	2639869	Push switch OPERATION
S851	2600321	Push switch 3D SYSTEM
★S901	2629365	Lever switch SURROUND
⚠PT601	2249811	Power transformer (1.12G 42.9VA) [for E]
⚠PT601	2249812	Power transformer [for E(BS), AU] (1.12G 42.9VA)
⚠PT601	2249813	Power transformer (1.12G 42.9VA) [for W(UN), W]
⚠PT601	2249814	Power transformer [for H, HC] (1.12G 42.9VA)
	8691408	BT bind head screw (3x8)
	2737441	MIC
○	4845711	MI PWB assy [for E(BS), E]
○	4845712	MI PWB assy [except E(BS), E]
★	4845731	MI PWB assy [for E(BS), E]
★	4845732	MI PWB assy [except E(BS), E]

SYMBOL NO.	PART NO.	DESCRIPTION
○	4845713	PL PWB assy [for E(BS), E]
○	4845714	PL PWB assy [except E(BS), E]
★	4845733	PL PWB assy [for E(BS), E]
★	4845734	PL PWB assy [except E(BS), E]
○	4845715	MA PWB assy [for E(BS), E]
○	4845716	MA PWB assy [for W(UN), W, AU]
○	4845717	MA PWB assy [for H, HC]
★	4845735	MA PWB assy [for E(BS), E]
★	4845736	MA PWB assy [for W(UN), W, AU]
★	4845737	MA PWB assy [for H, HC]
○	4845721	SW PWB assy
★	4845741	SW PWB assy
○	4845722	PA PWB assy [for E]
○	4845723	PA PWB assy [for E(BS)]
○	4845724	PA PWB assy [for W(UN), W]
○	4845725	PA PWB assy [for AU]
○	4845726	PA PWB assy [for H, HC]
★	4845742	PA PWB assy [for E]
★	4845743	PA PWB assy [for E(BS)]
★	4845744	PA PWB assy [for W(UN), W]
★	4845745	PA PWB assy [for AU]
★	4845746	PA PWB assy [for H, HC]

Cabinet

SYMBOL NO.	PART NO.	DESCRIPTION
1	3806151	Tuning knob [for E(BS), E]
	4044311	Tuning knob assy [except E(BS), E]
2	3806231	Gear [except E(BS), E]
5	3805771	Power button
6	3805791	3D button
7	3805781	Switch knob
8	3805601	Slide knob
9	3805851	Volume knob
★10	3805861	Volume knob B
11	2705942	Power supply cord [for E]
	2717901	Power supply cord [for E(BS)]
	2717464	Power supply cord [for W, W(UN)]
	2704542	Power supply cord [for AU]
	2706591	Power supply cord [for H]
	2711251	Power supply cord [for HC]

SYMBOL NO.	PART NO.	DESCRIPTION
12	3806051	Preset lid [for E(BS), E]
○13	4851871	Front case assy
★	4044821	Front case assy
14	2403992	16 Speaker (SUPER WOOFER)
15	2403981	12 Speaker (SIDE SP.)
○16	4044281	Top panel assy [for E(BS), E]
○	4044282	Top panel assy [for W, W(UN), AU]
○	4044283	Top panel assy [for H, HC]
★	4044831	Top panel assy [for E(BS), E]
★	4044832	Top panel assy [for W, W(UN), AU]
★	4044832	Top panel assy [for H, HC]
○17	4044301	Cassette lid assy [for E(BS), E]
○	4044302	Cassette lid assy [except E(BS), E]
★	4044303	Cassette lid assy [for E(BS), E]

SYMBOL NO.	PART NO.	DESCRIPTION
★	4044304	Cassette lid assy [except E(BS), E]
18	4597131	Tuning shaft [except E, E(BS)]
	4597071	Tuning shaft [for E, E(BS)]
19	4418013	E ring
20	3806201	Pointer
21	3348702	Pulley
22	3340321	Spring
23	3950382	Damper
24	3391961	Lid spring
25	2758141	Rod antenna
27	4042532	Handle assy
31	4044261	Rear case assy [for E]
	4044262	Rear case assy [for E(BS)]
	4044263	Rear case assy [for W]
	4044264	Rear case assy [for W(UN)]
	4044265	Rear case assy [for AU]

SYMBOL NO.	PART NO.	DESCRIPTION
	4044266	Rear case assy [for H]
	4044267	Rear case assy [for HC]
32	3805801	Battery lid
33	3369849	Spring A
34	4436666	Terminal
35	3369941	Spring
36	3367062	Spring
37	4476621	REC lever [for E(BS), E]
	4476871	REC lever[except E(BS), E]
38	3806161	Preset button[for E(BS),E]
39	3806162	Preset button[for E(BS), E]
40	2780311	Counter
41	4691911	Counter belt
42	3326981	Mechanism assy [for E(BS), E]
	3326961	Mechanism assy [except E(BS), E]

SYMBOL NO.	PART NO.	DESCRIPTION
44	3805581	Cassette button [for E(BS), E]
	3807411	Cassette button [except E(BS), E]
51	4577818	BT screw (3x50)
52	4577817	BT screw (3x30)
53	4577816	BT screw (3x20)
54	8699414	BT bind head screw (3x14)
55	8744408	Bind screw (3x8)
56	8691410	BT bind head screw (3x10)
57	4578973	BT flange screw (3x8)
58	8744410	Bind head screw (3x10)
61	8699410	BT bind head screw (3x10)
62	4578976	BT flange screw (3x20)
*63	4583947	Joint shaft
*64	3807491	SP bush
*65	8660405	Screw (3x5)

For TRK-3D75 only

Surround speaker

SYMBOL NO.	PART NO.	DESCRIPTION
1	4044681	Front panel assy
2	4044692	Foot assy (L)
	4044691	Foot assy (R)
3	4044701	Cabinet assy
4	2404051	10 cm speaker (SURROUND SP.)
5	4585176	Tapping screw (4x6)
6	3800281	Foot knob
7	4585175	Tapping screw (4z12)

For E, E(BS)

Cassette chassis(TN-21H-982)

SYMBOL NO.	PART NO.	DESCRIPTION
2	4818992	Switch plate
3	4839371	Push button actuator assy
4	4823651	REC button lever
5	4823661	PLAY button lever
6	4823671	RWD button lever
7	4823681	FF button lever
8	4823691	STOP button lever
9	4823701	PAUSE button lever
10	4818990	RWD lever
11	4819131	PAUSE lever
12	4819132	PAUSE lever spring
13	4819133	PAUSE stopper
14	4819100	Button lever spring
15	4820215	Sub chassis
16	4819007	Button lever spring
17	4820217	Play button lever spring
18	4833452	RECORD plate
19	4819008	Actuator spring
20	4819009	AUTO lever
21	4819000	AUTO lever spring
22	4831613	Button lever spring
23	4848951	Leaf switch
24	4820218	Switch actuator spring
25	4819006	PR stopper
26	4820219	Head panel
27	4819014	Head base
28	4832412	Sensing plate assy
30	4820221	Head panel spring
31	4819018	MG arm

SYMBOL NO.	PART NO.	DESCRIPTION
32	4832522	Screw
33	4819045	Screw
34	4819017	Spring
35	4839372	Pinch roller arm assy
36	4848082	Pinch roller spring
38	4831610	Metal guide
39	4850091	RF pulley arm assy (REWIND/FORWARD)
40	4820225	RF pulley arm spring
41	4820226	RF arm coller screw
42	4820227	Belt
43	4848081	Collar
44	4850092	Flywheel
46	4850093	T gear plate assy
47	4839378	Take-up roller Gear
48	4819020	TG plate spring
49	4832417	FF gear
50	4839382	Back tension spring
51	4842431	Supply reel assy
52	4839381	Take up reel assy
53	4832421	Record safety lever
54	4839379	Back tension spring
56	4819039	Motor rubber
57	4819533	Motor collar screw
59	4820252	Main belt
62	4819043	Eject slide lever
63	4819044	Eject slide lever spring
64	4820242	Pack spring
66	4848041	Record playback head
67	4848051	Erase head

SYMBOL NO.	PART NO.	DESCRIPTION
68	4832405	Motor assy
70	4819186	Screw (2 x 3)
71	4819607	Bind tapping screw (2 x 5)
72	4819068	Tapping screw (2 x 4)
73	4819063	Tapping screw (2 x 3)
75	4819611	Screw (2 x 6)
77	4819060	Screw (2 x 7)
78	4819072	Screw (2 x 7)
79	4833471	E typering (3.2)
80	4819600	Azimuth screw
83	4848953	Washer(1.2)
84	4819078	Washer(1.55)
85	4832432	Washer(2.05)
88	4833459	Frame
89	4833450	Buttonlever shaft

For W, W(UN), AU, H, HC

Cassette chassis (TN-222F-140)

ITEM NO.	PART NO.	DESCRIPTION
1	4819081	Head panel
2	4819082	CHP lever
3	4819083	Slide lever collar
4	4819084	Head panel spring
5	4819085	Head base
6	4819086	Head plate
7	4819087	Head SP plate
8	4848021	Record playback head
9	4850651	M.G. arm
10	4848031	Erase head
11	4850652	M.G. arm spring
12	4819089	Take-up roller plate (R) assy
13	4819080	Take-up roller plate assy (F)
14	4850653	T roller assy
15	4850654	Pressure roller arm assy (R)
16	4819093	C.H.P. lever collar A
17	4819094	Collar
18	4819095	FL metal (R)
19	4850655	Pressure roller arm assy (F)
20	4819097	Pinch roller spring
21	4819098	FL metal (F)
22	4819099	Take-up roller spring (F)
23	4819090	Take-up roller spring (R)
24	4819101	Control lever
25	4850656	Reel assy (R)
28	4850657	Reel assy (F)
29	4850658	Back tension spring
30	4819107	Main base assy
31	4850659	REC stopper spring
32	4850650	REC stopper
33	4819108	Leaf switch
34	4819109	Button lever spring
35	4819100	Button lever spring
36	4850661	REC safety lever
37	4850677	Spring
38	4850662	FF gear
39	4850663	P arm spring (R)
40	4850664	P arm spring (F)
41	4819115	E slide lever
42	4819116	Collar
43	4819222	Eject slide lever spring
45	4819119	Slide lever
46	4819110	SW SP plate
50	4850666	PC stopper
51	4819122	Push button actuator assy
52	4819123	Push button actuator spring
53	4819124	Switch actuator
54	4819125	RWD lever
55	4850667	REC button lever
56	4819223	PLAY button lever
57	4819224	REWIND button lever
58	4819225	FF button lever
59	4819226	STOP button lever
60	4819227	PAUSE button lever
61	4819131	PAUSE lever
62	4819132	Pause lever spring
63	4819133	PAUSE stopper

ITEM NO.	PART NO.	DESCRIPTION
68	4819138	RF clutch assy
69	4819139	RF clutch arm spring
70	4819130	RF belt
71	4819141	Lift spring
72	4819142	Lift arm assy
73	4819143	M trigger arm spring
74	4819144	M trigger arm assy
75	4819145	M gear
76	4819146	CH lever assy
77	4819147	CH lever spring
78	4819148	CH gear assy
79	4819149	P gear
80	4819140	P trigger arm spring
81	4819151	P trigger collar
82	4819152	P trigger arm
83	4819153	RF trigger arm
84	4819154	RF collar
85	4819155	P actuator arm assy
86	4819156	P actuator arm spring
87	4819157	Cam gear plate assy
88	4819158	Sensor plate spring
89	4819159	Cam gear plate spring
90	4819150	Cam gear
91	4819161	Pulley
92	4819162	Full auto belt
93	4819163	RF lever
94	4819164	Sensing plate
95	4819165	Control lever
96	4819166	Control lever spring
100	4850668	FL pulley capstan assy
101	4850669	FL gear capstan assy
102	4819169	Mail belt
104	4819171	Damper spring
105	4819172	FL patch plate
106	4819173	M collar screw
107	4819174	Motor rubber
108	4850660	FL plate assy
109	4819716	SW base assy
111	4832406	Motor assy
113	4819179	Collar
114	4819170	Screw (1.6x5)
115	4819007	Button lever spring
118	4850672	Pulley
119	4850673	Polyslider washer (0.85)
120	4819185	Spring
200	4819186	Screw (2x3)
201	4819187	Fine screw (2x10)
202	4850674	Camera screw (1.7x4)
203	4819188	Camera screw (2x2.5)
204	4819189	Camera screw (2x8.5)
205	4819180	Polyslider washer (1.2)
206	4850675	Power lock screw (2x6)
207	4819192	C tapping screw (2x3)
208	4819193	Screw (2x8)
209	4819194	Polyslider washer (2.1)
210	4819195	Tapping screw (2x5)
211	4819196	E ring
212	4819197	P tapping screw (2x6)
213	4819198	Camera screw (2x3)
214	4819199	Camera screw (2x1.5)
215	4819190	E ring

ITEM NO.	PART NO.	DESCRIPTION
216	4819201	Camera screw (2x3.5)
217	4819202	Camera screw (2x4.5)
218	4819203	E ring
219	4819192	C tapping screw (2x3)
220	4819234	Camera screw (2x8)
221	4819205	Polyslider washer (2.2)
222	4819206	Nylon washer (2.1)
223	4819207	Wire
224	4819208	Screw (2x3)
225	4819209	Damper spring
226	4477431	Button holder
227	4596071	Button lever shaft
228	4584376	E ring

HITACHI SALES EUROPA GmbH
Postfach 801060 Rungedamm 2, 2050 Hamburg 80,
West Germany
Tel. 040-734 11-0

HITACHI SALES (U.K.) Ltd.
Hitachi House, Station Road, Hayes, Middiesex UB3
4DR, England
Tel. 01-848-8787

HITACHI SALES SCANDINAVIA AB
Rissneieden 8, Box 7138, 172-07 Sundbyberg, Sweden
Tel. 08-98 52 80

HITACHI SALES NORWAY A/S
Oerebekk 1620, Gressvik, P.O. Box 46, N-1601,
Fredrikstad, Norway
Tel. 032-28255

SUOMEN HITACHI OY
Takojankatsu 5, 15800 Lahti 80, Finland
Tel. Lahti 44 241

HITACHI SALES A/S
Kuldyssen 13, DK-2630, Taastrup, Denmark
Tel. 02-999200

HITACHI SALES A.G.
Bahnhofstrasse, 19, 5600 Lenzburg, Switzerland
Tel. 064-513621

HITACHI SALES WARENHANDELS GMBH
A-1180/Wien, Kreuzgasse 27, Austria
Tel. 0222-439367

HITACHI SALES ITALIANA, S.P.A.
Via Cristoford Colombo 49, Trezzano sul naviglio
(Milano), Italy
Tel. 02-44 59 031

HITACHI SALES BELGIUM S.A.
56 Chaussee de Namur B-1400 Nivelles, Belgium
Tel. (003267) 227181

HITACHI SALES IBERICA, S.A.
Gran Via Carios Tercero, 101, 1-1, Barcelona-28,
Spain
Tel. 330-8652

HITACHI MAROC (RADIO TV ELECTRO-MANAGER), S.A.
Rue du Havre, Casablanca, Morrocco
Tel. 30-73-68, 30-73-57

HITACHI CANARIAS S.A.
Calle San-Francisco No. 19, Santa Cruz de Tenerife
Canary Islands
Tel. 24-64-98

HITACHI SALES (HELLAS) LTD.
110 Syngrou St., Athens, Greece
Tel. 9219082, 9233469

HITACHI SALES (MALAYSIA) SDN. BHD.
17, Jalan 20/16, Petaling Jaya, Selangor, Malaysia
Tel. 762523, 769918, 769836, 762594

HITACHI (SINGAPORE) PTE., LTD.
Room B, C & D, 15th Floor, Yen San Building
268 Orchard Road, Singapore 9, Singapore
Tel. 7378244, 7379826

HITACHI SALES (THAILAND) LTD.
2242-48, New Petchburi Road, Bangkapi, Hueykuang
Bangkok, Thailand
Tel. 314-2741

HITACHI ELECTRIC SERVICE CO., (HONG KONG) LTD.
4th Floor Leun Tai Industrial Bldg., 72-76 Kwai Cheong
Road Kwai Chung N.T., Hong Kong
Tel. 240126

HITACHI SALES AUSTRALIA PTY LTD.
153 Keys Road, Moorabbin, Victoria 3189 Australia
Tel. 555-8722

HITACHI SALES CORPORATION OF AMERICA
Eastern Regional Office
1290 Wall Street West, Lyndhurst, New Jersey 07071, U.S.A.
Tel. 201-935-8980

Mid-Western Regional Office
1400 Morse Ave., Elk Grove Village, Ill. 60007, U.S.A.
Tel. 312-593-1550

Southern Regional Office
510 Plaza Drive, College Park, Georgia 30349, U.S.A.
Tel. 404-763-0360

Western Regional Office
401 West Artesia Boulevard, Compton, California90220 U.S.A.
Tel. 213-537-8383

HITACHI SALES CORPORATION OF HAWAII, INC.
3219 Koapaka Street, Honolulu, Hawaii 96819, U.S.A.
Tel. 808-836-3621

HITACHI (HSC) CANADA INC.
3300 Trans-Canada Highway, Pointe Claire, Quebec,
H9R 1B1, Canada
Tel. 514-697-9150

Hitachi Sales Centroamericans, S.A.
San Rafael de Excazu, (Apartado 10272), San Jose,
Costa Rica
Tel. 28-20-11, 28-00-37

Hitachi Sales Corporation de Panama, S.A.
Nuevo Repato E1 Camen, Calle Ramon Arias y Calle B
Edificio Brasil 100, (Apartado 7657) Panama 5
Panama City, Rep of Panama
Tel. 61-3100, 61-4305

Hitachi Sales de Chile Cia., Ltda.
Av. Mexico, 0183, Casilla 9793, Correo Central
Santiago, Chile
Tel. 774165

HITACHI-FRANCE S.A.
95-101 Rue Charles Michels,
93200 SAINT-DENIS,
France
Tel. 821 6015

HITACHI LTD. TOKYO JAPAN
Head Office: THE HITACHI ATAGO BLDG.
No. 15-12, 2-Chome Nishi-Shinbashi
Minato-Ku, Tokyo 105, Japan
Tel. Tokyo (03) 502-2111

TRK-3D70/3D75 TY No. 568EF

Printed in Japan (GN)